PUNJAB RIVER WATERS DISPUTE

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1. Introduction:

Normally, we would not have written on a subject that is a current issue. But unfortunately and in fact inexplicably, opinions regarding the Punjab problem have been expressed in academic publications and circles that are far from being correct and factual. For this reason, it appears necessary briefly to state the factual, legal and constitutional position about the Punjab water and hydel power problem, the most elemental issue. We hope the confusion, misinformation and ignorance that prevail in some academic circles because of some journalistic and fast-food literature is dispelled, or at least the serious scholars or researchers take into consideration the aspect of this Punjab problem which is stated in this paper.

The River-Waters Dispute forms the prime social, economic and political issue in the Punjab, and is central to the solution of the socio-political problems in the state, since all further progress in the social, economic and political fields depends on the fair and constitutional resolution of this matter. Hence the necessity to understand the genesis and the gravity of the problem and how it has been unnecessarily prolonged and sidetracked with serious detriment to all concerned.

2. The Problem

Until 1966, Punjab like other States was the master of its river waters. But in 1966 at the time of the creation of the Punjabi *Suba*, the Centre introduced sections 78 to 80 in the Punjab Reorganisation Act, 1966, under which the Centre virtually assumed the powers of control, maintenance, distribution and development of the waters and the hydel power of the Punjab rivers. This assumption was unconstitutional because sections 78 to 80 vesting these powers in the Central Government, were considered discriminatory and violative of the provisions of the Indian Constitution. While it was demanded that the only fair and right solution of the problem was to refer the issue to the Constitutional Bench of the Supreme Court, this legitimate demand was side-tracked, and instead, the Centre not only started exercising powers under these sections of the Act, but also allotted over 75% of the available Punjab waters to the non-riparian areas of Rajasthan, Haryana and Delhi. In fact, the history of the struggle between the Punjab or the Sikhs, on the one hand, and the Centre on the other, is virtually a history of the Punjab trying to seek a constitutional reference and solution, and the Centre being continuously reluctant to follow that course. So much so, that while at one time the issue had actually been referred to the Supreme Court at the instance of the Punjab Government, (by an Akali Ministry) and was pending there for hearing and decision, the Centre and the Congress Ministry in the state managed to withdraw the case from the file of the Supreme Court and frustrate the attempt to obtain a judicial verdict. So the problem continues since the Punjab feels that the drain of its natural wealth is unconstitutional and unjustifiable and would be ruinous for its future and its people.

3. The Riparian Law, Constitutional Rights And Practices

Under the age old International Law and practice it is accepted that where a river lies wholly within the territory of one State, it entirely belongs to the state, and no other state has any rights therein. And where a river passes through more than one state, each state owns that part of the river which runs through its territory. Thus, according to authorities like Berber, Heffer, Stark, Samisonian and others disputes relating to river waters can only be between riparian states and not between a riparian state and a non-riparian state. This riparian principle stands embodied in the international laws and national laws, including the Common Law of England, and also in Helsinki rules for inter-state water allocation.

[1] In short, river and river waters which flow on land are an essential part of land or territory of a state, which has absolute rights therein. For, territory constitutes an integral attribute of a state. Here it is necessary to indicate that the word state for the purpose of this right includes a state or a province within a country. This riparian principle stands embodied in the Indian Constitution vide entry 17 of the list to 7th Schedule of the Constitution. Rivers, River Waters and Hydel power have exclusively been kept as state subjects. The entry reads :

“17 -Waters, that is to say, water supplies, irrigation and canals drainage and embankments, water storage and water power subject to the provisions of Entry 56 of List I.”

Entry 56 of List I of the 7th Schedule reads :

“56 -Regulation and Development of Interstate rivers and river valleys to the extent to which such regulation and development under the control of the Union, is declared by the Parliament to be expedient in the public interest.”

Article 262 of the Constitution says;

“262 -Adjudication of disputes relating to waters of interstate rivers or river valleys.

(1) Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-state river or river valley.
(2) Notwithstanding anything in the constitution parliament may by law provide that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint as is referred to in clause (1).”

Further, regarding a river the state has full and exclusive legislative and executive powers under Articles 246(3) and 162 of the Indian Constitution. Entry 56 and Article 262 mentioned above give authority to Parliament to legislate only in regard to interstate rivers and not in regard to water of a state river over which the concerned state alone has full, exclusive and final authority. A river valley is “a tract of land lying between mountains and hills, generally traversed by a stream or a river or containing a lake usually narrower than vale and lying between steeper slopes.” Valley also means “a land drained or watered by a great river.” At the 1958 conference of the International Law Association a basin has been defined thus :

“A drainage basin is an area within the territories of two or more States in which all the streams of flowing surface water, both natural and artificial, drain a common water-shed terminating in a common outlet or common outlets to the sea or to a lake or to some inland place from which there is no apparent outlet to a sea.” [2]

As such, both under the definition of the basin and the valley, Rajasthan and Haryana lie beyond the basin of the three Punjab rivers, Satluj, Beas and Ravi. In fact Haryana lies in the Ganga- Yamuna basin, and partly in the Ghagar basin which is clearly distinct from Satluj basin. For, no river or drain from Rajasthan or Haryana has a common ending with the Punjab Rivers. The fundamental principle and rationale underlying the Riparian Law is that since for centuries on end it is the inhabitants around a river or rivulet who suffer loss of land, property, cattle, and human life from the ravages and floods of a stream, they alone are entitled to the benefits or water rights of the concerned stream. Here it is relevant to state that in the 1988 floods, Punjab suffered a loss of scores of lives apart from the loss of property estimated officially at over one billion dollars. It is significant that neither Rajasthan, nor Haryana nor Delhi ever suffered a penny worth of loss from floods in the Punjab rivers.

4. Existing Judicial Decisions -National and International

(a) On the riparian principle there are clear judicial decisions including the one concerning the Narmada River which pass through the territory of Madhya Pradesh, Maharashtra and Gujrat, but not through Rajasthan. As such, following was the judicial decision on the petition of Rajasthan for a share of the Narmada Waters :

“(I) Rajasthan being a non-riparian state in regard to Narmada, cannot apply to the Tribunal, because under the Act only a co-riparian state can do so; and (ii) the state of Rajasthan is not entitled to any portion of the waters of Narmada basin on the ground that the state of Rajasthan is not a co-riparian state, or that no portion of its territory is situated in the basin of River Narmada.” [3]

On Rajasthan's plea that even though non-riparian, it should get Narmada Water, just as it is getting Punjab waters, though a non-riparian state, the judgement records as follows :

“Utilisation of Ravi and Beas : The apportionment of water was the result of an agreement. It appears from Rajasthan documents Volume VI at pages 26 and 30 that Punjab was prepared to satisfy the needs of Rajasthan, provided its own needs as a riparian state were first satisfied.”

“Tested in the light of these, we are not able to say that Rajasthan has fulfilled the burden of showing the requirement of opinion necessitates. Nor is there evidence of a clear and continuous course of conduct with regard to the rights of Rajasthan, as non-riparian state in the rivers of Punjab or Uttar Pradesh.”

“(12-A) 1951, When the question of utilisation of waters of Ravi and Beas was under examination, the Punjab Government again claimed a preference, vide their representation dated 16. 11. 1964, for the waters of these rivers on the ground of their being a riparian state. The superiority of the right of Punjab was not upheld by the Government of India and in the meeting under the auspices of the Government of India, the water was apportioned… … Rajasthan was allotted 8 MAF out of a total available quantity of 15. 85 MAF.” [4]

Two important facts are clear from the Narmada Judgement, namely, that Rajasthan accepts that it is non-riparian vis-a-vis Ravi and Beas, and that the Centre has been allocating Punjab waters to Rajasthan, despite objections from the former and their knowledge of the verdict that non-riparian Rajasthan has no claim to Punjab waters.

(b) On the ground that those who suffer from a stream, are alone entitled to enjoy rights therein, the inhabitants of South California for over a hundred years did not allow water even to the lands and parks of the Federal Government situated in South California itself. It was only in February 1988 that the lower court agreed that the forest lands of the Government in South California should be allowed water, but this permission was made subject to the provision “that state water authorities retain the power to subordinate any new federal claims to the needs of the current water users in the state.” [5] It shows that the principle of reciprocity, that benefit should in equity go only to those who suffer, is so strong that even Federal Forest Lands and Parks in that very state, remained deprived of the facility for over a century, and when it was allowed, the right was made clearly subject to the interests and needs of the private users. The decision was considered destabilising and unsatisfactory, and the affected private parties were going in an appeal to have it reversed. This shows how strong is the recognition and sanctity of the Riparian Law, and its equitable linkage between the sufferers and the beneficiaries.

The irony of the injustice felt in this context is that whereas Punjab needs every drop of the waters of its rivers, under the Central awards or decisions over 75% of the available waters of the Punjab rivers, have been allotted to the non-riparian states of Haryana, Rajasthan and Delhi.

5. The River Water Dispute

The real cause of this dispute are Sections 78 to 80 of the Punjab Reorganisation Act 1966, which provide for three things. First, that in case of differences between Punjab and Haryana the power of making distribution and allotments of the River waters and the hydel power from the Punjab rivers would lie with the Central Government. This power was later exercised by the Central Government, vide its orders of 1976, which gave over 75% of the available river waters of the Punjab to the non-riparian states of Haryana, Rajasthan and Delhi, i.e., 11. 7 MAF out of 15. 2 MAF. Second, that after 1966 all powers of control, management, administration and maintenance of the multipurpose projects of the three Punjab rivers shall vest in a Board appointed by the Central Government. Third, that the powers of extension and development of the multipurpose projects involving irrigation and power on the three Punjab rivers also vest in the Central Government.

The net result of these provisions is that after 1966 the State subjects of Irrigation and Hydel power, which are solely in the state list under the constitution, have virtually become Central subjects.

6. The Dispute Accentuates

After 1966 Haryana planned the SYL Canal to carry 5 MAF of waters and got the Project approved from the Central Government. Since it was a post-1966 Project to carry Punjab waters and there was no reference or mention of it even in the unconstitutional provisions of the Reorganisation Act, the Punjab government naturally objected to the scheme, the same being violative of the statutory rights of Punjab under the Constitution. But the Centre utilised its powers of decision under Sections 78 of the Reorganisation Act, although even the 1966 Act (itself considered unconstitutional) does not mention the SYL Canal or any other scheme of a non-riparian state, whether Haryana or Rajasthan. Accordingly, Punjab suggested that the only way to solve the constitutional problem was to refer the issue to the constitutional Bench of the Supreme Court for decision, which would be obligatory for the States to follow, and which no State could object to. Punjab's contention is that Sections 78 to 80 of the P. R. Act are not only violative of Entry 17

of the State List of the Constitution, clearly indicating ‘water power' and ‘irrigation' to be state subjects, and of Articles 162 and 246(3) of the Constitution, but are also discriminatory under the Equality Article 14 of the Constitution in so far as it gives all the Jamuna waters to the Haryana, but provides for the distribution of the Punjab river waters flowing in the Punjab territory to non-riparian states. Hence, the argument has been that the only solution of the water and hydel power dispute has to be a reference to the Supreme Court for its constitutional verdict.

7. Beas Project

We have explained above the Riparian principle under which just as Punjab is not entitled to Jamuna waters after 1966, Haryana is not entitled to any water of the Punjab rivers except what could be contracted on grounds of actual appropriation before 1966. But in violation of the Constitution, the planned Beas Project was made an excuse for diverting most part of Punjab waters to non-riparian states, and divesting Punjab of its economic, political and constitutional rights. Before 1966, Beas Project had already been drawn and finalised after two revisions. In the finalised Project only about 0. 9 MAF of water was to go to Haryana, which was earlier a part of the erstwhile Punjab. As is normal, every detail of the Project, including areas to be irrigated, water courses to be dug, quantity of water to be supplied to each channel or area, stood determined. There was no ambiguity in this regard. Since the scheme had not actually been fully completed before Punjab had been divided, and Haryana became non-riparian, it ceased to be entitled under our Constitution even to 0. 9 MAF envisaged in the Project. But this project was made a ground for the inclusion of Sections 78 to 80 in the Punjab Reorganisation Act 1966, thereby giving a lever to Haryana illegally to claim Punjab water, and the Central Government to become the masters and the arbitrator of the untenable claims of the non-riparian states. We give below provisions of the Punjab Reorganisation Act to show how later a new scheme of the SYL Canal was drawn up by Haryana, with the approval of the Central Government, and how provisions of the Act have unconstitutionally been made the excuse to drain Punjab of its natural wealth.

The relevant provisions of section 78 run as follows:-

“78. Rights and liabilities in regard to Bhakra-Nangal and Beas Projects:-

(1) Notwithstanding anything contained in this Act but subject to the Provisions of section 79 and 80, all rights and liabilities of the existing State of Punjab in relation to Bhakra-Nangal Project and Beas Project shall, on the appointed day, be the rights and liabilities of the successor States in such proportion as may be fixed, and subject to such adjustment as may be made by agreement entered into by the said States after consultation with the Central Government or if no such agreement is entered into within two years of the appointed day, as the Central Government may by order determine having regard to the purpose of the Projects :

Provided that the order so made by the Central Government may be varied by the subsequent agreement entered into by the successor States after consultation with the Central Government.

(2) An agreement or order referred to in sub-section (1) shall if there has been or extension or further development of either of the projects referred to in that sub-section after the appointed day provide also for the rights and liabilities of the successor States in relation to such extension or further development.

(3) The rights and liabilities referred to in sub-section (1) and (2) shall include:-

(a) the rights to receive and to utilise the water available for distribution as a result of the projects and
(b) the rights to receive and to utilise the power generated as a result of the projects, but shall not include the rights and liabilities under any contract entered into before the appointed day by the Government of the existing State of Punjab with any person or authority other than Government.

(4)In this section and in section 79 and 80

(A) “Beas Project” means the works which are either under construction or to be constructed as components of the Beas Satluj Link Project (Unit-I) and Pong Dam Project on the Beas river (Unit-II) including

(i) Beas-Satluj Link Project (Unit-I) comprising -
(a) Pandoh Dam and works appurtenant thereto

(b) Pandoh -Bagi Tunnel
(c) Sundernagar Hydel Channel
(d) Sundernagar Satluj Tunnel
(e) By-pass Tunnel
(f) four generating units each of 165 M. W. capacity at Dehar Power House on the right side of Satluj river
(g) fifth generating unit of 120 M. W. capacity at Bhakra Right Bank Power House
(h) transmission lines

(i) Balancing Reservoir
(ii) Pong Dam Project (Unit-II) comprising -
(a) Pong Dam and works appurtenant thereto
(b) Outlet Works
(c) Penstock Tunnels
(d) Power plant with four generating units of 60 M. W. each

(iii) such other works as are ancillary to the works aforesaid and are of common interest to more than one State;

(B) "Bhakra Nangal Project" means -

i. Bhakra Dam, Reservoir and works appurtenant thereto;
ii. Nangal Dam and Nangal Hydel Channel;
iii. Bhakra Main Line and canal system;

iv. Bhakra left Bank Power House, Ganguwal Power House and Kotla Power House, switch-yards, sub-stations and transmission lines;
v. Bhakra Right Bank Power House, with four units of 120 M. W. each.

These provisions emphasize two things, namely, that it is only the waters of the Beas Project that would be distributed, and, secondly, that this regulation would be with the sole object of meeting the purposes of the Beas Project. The purposes of the Beas Project, we have seen, stand clearly defined and detailed. The following prescribed purposes of the Beas Project have been ignored and the award creates altogether new purposes going far outside the purview of the project and Section 78.

(a) The Beas project as defined in section 78(4) A means the works under construction or to be constructed as components of (1) Beas Satluj Link Project (Unit I) and Pong Dam Project on the Beas river (Unit II). It is only the Beas waters available from these two works that can be distributed under section 78 (3) (a). For, the Beas Project as defined above, has to be constructed strictly. This definition which is very specific clearly excludes (1) works like the Ravi-Beas Link that were in existence even before the initiation of the Beas Project. It is only the works that are 'under construction' or are to be constructed that are included in the Beas Project); and, (2) The Ravi waters or works like the Thein Dam that will store the Ravi waters. Accordingly all the Ravi waters stand excluded from the scope of section 78 or the Beas Project as defined in this section in which there is no mention whatsoever either of the old works, of the waters of Ravi or of any Project that might be related to the river Ravi. The two projects of Pong Dam and Beas-Satluj Link specifically relate only to the Beas waters, and that, too, only with that part of Beas water that is dealt with by these two works. Hence, the distribution of all Ravi and Beas waters, is illegal and beyond the scope of section 78. Because both the award and the modified agreement have been made under section 78(1) and the proviso thereto. The two works mentioned in section 78(4) only relate to a part of Beas water; and that part alone could be distributed or regulated under section 73(3) (a), keeping into view the purpose of these two works as laid down in the approved Beas Project. According to the Beas Project, the purpose of these two works is to supply 3. 2 MAF at Harike (3. 66 minus . 44 MAF in use from pre-partition days) and 2. 2 MAF at Ropar (3. 6 minus 1. 374 MAF to go to Harike). This comes to 6. 44 MAF. This quantum of water is thus the only water that could be distributed or regulated under section 78(1) and (3)(a). Hence the illegality of the distribution of waters to the extent of 17. 17 or 15. 58 MAF.

(b) Secondly, under section 78(1) rights and benefits of the defined Beas Project could be allocated only to the successor States as defined in section 2(m) of the Punjab Reorganisation Act, 1966, namely, Punjab, Haryana and Chandigarh. Thus, the allocation of benefits and waters to Rajasthan or Delhi is illegal, being an allotment to non-successor States, and being for that reason, beyond the scope of section 78.

(c) Thirdly, the participation of Rajasthan in the agreement of December 1981 is beyond the scope and contemplation of proviso to section 78(1) under which successor States alone could enter into an agreement. Therefore, the participation of Rajasthan and the allocation of waters to it in the agreement vitiates the entire agreement and its related proceedings.

(d) Fourthly, the SYL canal, the time-bound execution of which forms a part of the Agreement of 1981, made under the proviso to section 78(1), is a work completely beyond the scope of the Beas Project as defined in section 78. In fact, it is a work even far beyond the purposes of the original or the accepted Beas Project of 1959, 1961, or 1966. In that Project there is a complete detail of the waters available at each point of distribution, the areas to be irrigated, the channels to be dug, etc. and, yet, there is no mention whatsoever of the SYL Project or a canal scheme of like nature planned to carry 3. 5 MAF. Actually there is no scope at all of the availability of 3. 5 MAF of waters at any single point, since all the water the Beas Project has to yield, stand allocated to different areas and points of distribution. In reality, the SYL canal, to be started from Nangal for supply to Haryana and to carry 3. 5 MAF of waters is a project conceived and framed by Haryana after the Reorganisation in 1966. It is a work neither under construction in 1966 nor ‘to be constructed' under the project nor within the contemplation of the framers of the Beas Project. Hence this work is clearly beyond the scope, consequences and purposes not only of the Beas Project as defined in section 78, but also of the Project as framed or accepted before October, 1966. It is an entirely new project devised by Haryana after 1966. Otherwise, how could it be that its capacity allocation, etc., have remained undetermined and undefined.

(e) Fifthly, no Beas Project canal from Harike plans supply of water to Haryana out of the supply there of 3. 2 MAF. The entire waters are projected to supply water to the Punjab area. Out of the 2. 2 MAF to be supplied at Ropar only 0. 9 MAF have to go to the Haryana area, the same having been fixed in the earlier distribution itself. According to Punjab, project calculations worked Haryana's share at 0. 9 MAF. If there was any arithmetical error the Centre could recheck those calculations in accordance with the defined purpose of the project for distribution of 2. 22 MAF of waters at Ropar. But the Centre as explained below, in its Award of 1976, ignored both the purposes of the Project and the provisions of section 78.

(f) Non-riparian Haryana has been given 3. 5 MAF at Nangal when the project provides for the delivery of 3. 22 MAF at Harike with no channels to supply any water to Haryana and of 2. 2 MAF at Ropar for supply to the channels both of Punjab and of Haryana. Under the Beas Project, Punjab had already constructed channels that are ready to supply water to the projects areas of Punjab. Non-perennial supply is already being given, but perennial supply could be made only after the Central decision. But how can now the projected perennial supply be made to Punjab, when instead of the contemplated 0. 9 MAF, 3. 5 MAF have been allotted to Haryana for areas that are beyond the plan or the purposes of the project ? The purpose of the Project was to supply about 4. 54 MAF to Punjab (3. 22 at Harike and 1. 32 MAF at Ropar) and about 0. 90 MAF to Haryana. But the Central award completely frustrated the purposes of the Project. In fact, by the allotment of 3. 5 to Haryana, the entire project has been demolished. The Punjab channels constructed under the project have become largely redundant. The purpose of the Project has been drastically altered so as to effect adversely the economic fate and future of Punjab and millions of Punjabis. Under section 78, the Centre has no powers of regulation that go beyond the purposes of the defined Beas project.

8. River Waters and their Allocation

The old Punjab derives its name from the presence of Satluj, Beas, Ravi, Chenab and Jhelum, the five rivers that run through its territory. All these five rivers join the Indus on to the sea. Hence the name Punjab and Indus Basin to the areas which these six rivers drain finally into the sea. At the time of partition of India in 1947 Chenab and Jhelum remained in Pakistan Punjab and the remaining three rivers ran both in Indian Punjab and Pakistan Punjab. Thus while Indian Punjab ceases to be co-riparian regarding Chenab and Jhelum, it continues to be co-riparian in relation to Satluj, Beas and Ravi. Before partition Pakistan Punjab had a canal system which drew waters from these three co-riparian Punjab rivers. Indian Punjab being the upper riparian, during the first year after partition, it more than once virtually stopped, to the detriment of Pakistan agriculture, water supply to the canal system of Pakistan, which was fed from these rivers. Hence arose the dispute between Western Punjab and Indian Punjab.

The factual position was that before partition, Punjab had about 170 MAF of water in its rivers. It had 5. 6 MAF of waters from River Jamuna of the Ganga basin, because a part of that river basin stood included in the old Punjab. After partition, including the share of Jamuna waters, the three Punjab rivers in the state had a total supply of about 38 MAF. Finally, the dispute was resolved at the international level with the decision that the waters of the three rivers, Satluj,

Beas and Ravi, became the share of Indian Punjab and the waters of the other three rivers went entirely to Pakistan Punjab.

Here two points need clarification. Pakistan Punjab did not very seriously insist on the share of Indian Punjab rivers, even though it was co-riparian and its canal system was fed from them, because no country could allow its irrigation system to be controlled by and be subject to the whims of an upper riparian foreign state, especially when the relations between the two countries had not remained cordial. Second, the payment of 62 million Pounds made to Pakistan as contribution was not compensation paid for the share of waters of the three rivers, which had earlier been used in Pakistan Punjab, but it was only a minor contribution towards the cost of replacement works which had to be constructed in Pakistan Punjab rivers. Most of the cost of those replacement works was met from the aid of World institutions. Regarding this payment of contribution for replacement works former Chief Justice, S. M. Sikri says: "The fact that the Central Government paid to Pakistan a sum of (£ ?) $ 62 millions in order to obtain unrestricted use of all waters of Eastern Rivers, the Satluj, Ravi and Beas, is irrelevant to the question, namely, what if any, are the rights of Haryana in the Ravi and Beas. It is irrelevant because the effect of the Indus treaty, 1960, was that the sovereign right of erstwhile state of Punjab to control or regulate the use of waters of Ravi and Beas which was a limited right in 1966 in view of the existence of the international servitude (Page 51 of Law of Succession by Counsel) ceased to be limited in 1970. It was the reorganised State of Punjab which had either retained the Sovereign right under the Act or acquired it under the Act." [6]

At the time of Independence, out of about 32. 5 MAF in three Punjab rivers, about 9. 0 MAF were being used in Punjabi Suba area and 1. 0 MAF was used in the erstwhile Bikaner state for which it paid royalty to Punjab, the waters being of the State and not of the Central Government. The rest of the water was being utilised in Pakistan Punjab or going down to the sea.

Here it is relevant to state that in 1954 while the Indus water dispute was going on, the Indian representative, Mr. Gulati, in order to make an argument before the Commission about the proposed utilisation of waters of the Punjab rivers, required the Central Government hastily to draw a project showing utilisation of the waters of these rivers in the Punjab and Rajasthan. Accordingly, the Centre called an officer-level meeting to frame and submit a project for utilisation of 8. 0 MAF in Rajasthan. This was done for the consumption of the Indus Water Commission. It is this show business which was later made the basis for draining the bulk of Punjab waters to Rajasthan. This allocation done in that officer-level meeting was not in pursuance of any decision by the Punjab Ministry, Government, or the Legislature, nor was an early *post facto* endorsement of this allocation sought.

However, it is very relevant and revealing to give the views of the International body before whom the above Rajasthan Project was presented. David E. Lilienthal, erstwhile Chairman of the Tennessee Valley Authority and Chairman of the US Atomic Energy Commission, was asked to undertake a fact-finding tour of India and Pakistan and to report how the dispute before the Indus Water Commission could be resolved. His views were also endorsed later by Eugene R. Black of the International Bank of Reconstruction and Development, in short, the World Bank. Taking all these views into consideration, Alloys A. Michael, author of the *Indus River - A Study of the Effects of Partition*, concludes as under :

"Viewed realistically the Rajasthan Project in its ultimate form is a dubious one… … The ideal of extending the Rajasthan Canal parallel to the Indo-Pakistan border in the northern portion of the Thar Desert down to a point about opposite the Sukkur Barrage was a seductive one : 7. 9 million acres could be brought under command and 6. 7 million of these are potentially cultivable although the project in its present form is limited to supplying water to only 4. 5 million acres of which only 3. 5 million would be cultivated in a given year. Even then, these lands will receive only 1 cusec (F. N. II) of water for each 250 to 300 acres, an intensity lower than what has prevailed in the Punjab since the British times (1 cusec for 200 acres) and less than one third of what prevails in the US… … Assured by her geographical position and later by the treaty of the full use of the Eastern Rivers, India naturally sought an area to irrigate. Forgotten or overlooked were the fundamental differences between the Punjab, with its convergent streams, tapering *doabs* and silty soil, and the Thar desert, hundreds of miles from the Satluj with its sand and sand dunes. The cumulative irrigation experience in India, Egypt, the US, and the Soviet Union indicates that more food and fibre can be obtained by increasing the water allowance to existing cultivated lands than by spreading water thin over new tracts. But to introduce it into the Thar Desert is economically unjustifiable. The 8. 8 MAF of Beas-Satluj-Ravi water that are to be diverted from Harike for the Rajasthan canal could be put to much better use in the East Punjab, north and the south of the Satluj and in eastern margins of Rajasthan served by the Bikaner Canal and Sirhind Feeder.

Combined with concentrated application of the limited fertilizers at India's disposal, yields in the established areas could be doubled or trebled at a saving in cost and pain in Rajasthan. The very experience with the Bhakra project itself, which increased water supplies to 3. 3 million acres south of the Satluj demonstrates this, yet even here, out of every 182 run into a canal, 112 are lost by seepage, evaporation and non-beneficial transpiration of plants. On the Rajasthan canal, although the lining will reduce seepage in the main canal to a minimum, evaporation alone might reduce supplies by 50 percent. And the seepage losses in the unlined branch canals, distributaries, minors, sub-minors, water courses, and on the *bunded* fields themselves will further reduce the share of water that can be used beneficially by plants of economic value… …" [7]

The US Bureau of Reclamation and the author of the *The Indus River*, severely criticized India "for undertaking a costly project to irrigate the lands which like all desert lands are highly porous and deficient in organic matter without first carrying out the basic soil surveys and the studies on the land classification. They warned that the consequences of persisting with the project for the sake of pride by negating the technical and the economic values could be plain frustration in the end."

The objective view of the highest authorities emphasizes the economically unjustifiable, extremely unproductive and, indeed, clearly wasteful nature of the Project to carry Punjab waters to Rajasthan areas. The significant point is that the Central insistence on transferring Punjab waters, and later increasing the allocation of Rajasthan from 8. 0 MAF to 8. 6 MAF, has been done in full knowledge of these expert observations and the results of experience and investigations pointed out above.

9. Central Award

After 1947 the Bhakra Nangal Project was completed. Under this scheme 25 lakh acres have to be irrigated in non-riparian areas (16 lakhs in Haryana and 9 lakhs in Rajasthan) and only about 11 lakh acres have to be irrigated in the riparian Punjab. We have already mentioned that this allotment contravenes the Riparian principle embodied in our Constitution.

Out of the about 32 MAF in the Punjab rivers, about 10 MAF stood utilised in the Punjabi Suba and Bikaner. It is the remaining about 22 MAF which the Centre has been distributing in a manner, and almost under the assumption, that the water of Punjab rivers belonged to the Centre for distribution in its discretion.

Even if it were assumed that what was done was constitutionally justifiable, the distribution would apparently seem to have been governed by considerations of politics rather than by those of utility and production. After 1966 since Haryana had ceased to be riparian, it could have no right to Punjab waters. In any case, there was no ambiguity regarding the specific allocation to each area or the Haryana area in the finalised Beas Project, and there was no justification for the provisions of section 78 to 80 in the Reorganisation Act except that this unconstitutional provision could later be used as a lever for Punjab being made a sub-state and deprived of the major part of its waters and its hydel power for diversion to non-riparian states, and to schemes and projects that were not at all envisaged, much less approved, before 1966. From what has actually happened later this would seem to be the only reason for inclusion of these unconstitutional provisions.

While Punjab could insist on not giving even the 0. 9 MAF provided in the Beas Project, it declined to give anything more than 0. 9 MAF for the SYL Canal, a project framed and got approved without reference to or concurrence of the Punjab Government, the riparian state. Actually, the precedent was obvious in the Reorganisation Act itself, which gave the 5. 6 MAF waters of Jamuna, belonging to the erstwhile Punjab, to Haryana entirely without giving any share to Punjab, which after 1966 had ceased to be riparian in reference to it. The dispute between Punjabi *Suba* and Haryana dragged on. It was in the interests of Haryana to do it, so that it could request the Centre to allocate waters for the SYL Project, which it had already approved unilaterally. The Bhakra Nangal Project, having already allocated the waters of Satluj, only the waters of Beas and Ravi were left, and these were made, at the instance of Haryana, the subject of Central arbitration under Section 78 of the Reorganisation Act.

The agitation against the unconstitutional provisions of the Reorganisation Act had started after 1966 and Sant Fateh Singh had kept a fast unto death in this regard. But in order to solve the issue neither the Act was changed, nor was it referred to the Constitutional Bench of the Supreme Court for decision, that being the only forum for adjudicating on such constitutional matters. But instead of doing that, the Central Government, under Prime Minister Indira Gandhi,

gave in 1976, as mentioned earlier, the award allotting 3. 5 MAF each to Punjab and Haryana, and 0. 2 MAF to Delhi, an area unconcerned with the Reorganisation Act. The remaining 8. 0 MAF were earmarked for Rajasthan. The decision being considered unfair and unconstitutional, the agitation against the award continued in Punjab. In 1978 when the Akali Party was in power in Punjab, the Government filed in the Supreme Court a case regarding the unconstitutionality of the Punjab Reorganisation Act and the award, made thereunder. At that time the Congress Government was not in power at the Centre. But in 1979 the Congress returned to power under *Shrimati* Indira Gandhi. The Akali Government in Punjab was dismissed. The agitation regarding the water issue was restarted. While the Akali agitation was going on and the Prime Minister, Indira Gandhi, was having negotiations with the Akalis, she arranged in 1981 a meeting at Delhi among the Chief Ministers of Punjab, Haryana and Rajasthan. All the three Chief Ministers belonged to the Congress Party and an agreement was made virtually endorsing the award of the Prime Minister.

Under it Punjab was given 4. 22 MAF, Haryana 3. 5 MAF, Rajasthan 8. 6 MAF, J&K 0. 65 MAF and Delhi 0. 2 MAF. This time the available waters of the three rivers were assessed at a higher level, of 17. 17 MAF than at 15. 2 MAF as in 1976. This was just the result of arithmetic jugglery. After the agreement, the government withdrew the case pending in the Supreme Court regarding the constitutionality of the Punjab Reorganisation Act. (A report appeared in *The Tribune* according to which the Chief Minister, Punjab, had indicated that he had signed the damaging agreement under the threat of gunpoint. [8] The report was later denied by the Chief Minister, but it was reiterated by the correspondent. The Prime Minister soon thereafter laid the foundation of the disputed SYL Canal. The Akalis having found the door to negotiation closed against them, and the Central issue of momentous social, economic and political potential for the state summarily decided against them, and the foundation of the SYL canal having been laid, restarted the agitation at Kapoori to resist the digging of the SYL Canal. Government decision to withdraw the pending case from the Supreme Court has, from every point of view, been ruinous for the state, its people and the country. The agitation continues still, with Punjab problems increasing in number and their complications mounting from year to year. Although obvious, it needs to be stressed that a problem which had only one solution has been kept unresolved.

10. Judicial Process Thwarted Yet Again

An organisation of farmers had filed a petition in the High Court, Punjab and Haryana, regarding the unconstitutionality of the drain of the waters of the Punjab to the non-riparian states under the Reorganisation Act. The issue being of fundamental constitutional importance, the Chief Justice, S. S. Sandhawalia admitted the long pending petition and announced the constitution of a Full Bench, with himself as Chairman, for the hearing of the case on the following Monday, the 25th November, 1983. In the intervening two days before the hearing of the case could start, and these two days were holidays, two things happened. First, before Monday, the Chief Justice of the High Court was transferred to the High Court of Patna. Hence neither the Bench could sit, nor could the hearing of the case start. Second an oral application was given by the Attorney General in the Supreme Court requesting for the transfer of the writ petition from the file of the High Court to that of the Supreme Court on the ground that the issue involved was of great public importance. The request was granted; the case was transferred. [9] And there this case of great public importance rests unheard for the last nearly twenty years.

Evidently, it is difficult to avoid the inference that the Central Government has been reluctant to allow the constitutional issue to be decided by the courts, which would permanently have solved the most important issue of the Punjab problem. In fact, while the core of the Punjab problem was kept unresolved, by avoiding a constitutional verdict, public attention was sought to be diverted to matters of so-called law and order and separatism.

11. Role of Supreme Court Versus Tribunal

Another matter needs to be stressed. Throughout the decades after 1966, the Akali demand was that the water and power problem being in every aspect a constitutional issue, the only lawful and acceptable solution could be a verdict of the Supreme Court, there being already clear national and international Court rulings and precedents on the subject. But the Government had been suggesting, that the matter might be referred to a Tribunal constituted by the Government under the Inter-State Water Disputes Act, 1956. As against this suggestion it was urged that a reference to the Tribunal under that Act would, for a number of reasons, be wrong and uncalled for. First, Satluj, Ravi and Beas are not inter-state rivers in relation to Rajasthan, Haryana and Delhi, and, as such, the dispute could not be the subject of a reference to a Tribunal, the matter being not a ‘water dispute' as defined under section 2 of the Act. Second, the criticism of the Punjab Reorganisation Act is that it is unconstitutional, first, because it is discriminatory and violative

of Article 14 of the Constitution and, second, because its enactment is beyond the legislative powers of Parliament, water and hydel power being purely and exclusively state subjects. Therefore, the issue to be decided was the ultra vires character of the Reorganisation Act, and not the distribution of the waters, which was never in dispute. But a tribunal is not competent to decide a constitutional issue, which the Punjab was keen to have adjudicated upon and the Centre to avoid it. Hence the sole method of solution, as provided in the constitution was a reference to the Supreme Court, and not a reference to a Tribunal. Apart from the fact that a reference to the Tribunal was, for the above two reasons, uncalled for, it was objectionable otherwise too. First, a decision by a Tribunal constituted at the instance of the Central Government or the Executive authority could not have the sanction or finality of a constitutional decision by the Supreme Court, nor could such quasi-judicial bodies, it was felt, command necessary respect, as was found in the case of Justice Shah, appointed by the Janata Government to adjudge the conduct of the erstwhile Prime Minister, *Shrimati* Indira Gandhi. Second, a reference to a Tribunal has been considered a negation of justice because once a Tribunal gives its verdict on a water issue, it cannot again be the subject of a reference to the Supreme Court. Since Punjab's case was against the unconstitutionality of the Reorganisation Act a reference to the Tribunal was felt to be a denial for all time of Punjab's objective of getting justice by seeking a constitutional verdict of the Supreme Court. Third, whereas a decision by a tribunal was quasi-judicial, and for that matter only of individual applicability, without the force of a constitutional ruling binding in future cases, and liable to be influenced by even non-judicial factors, a verdict of the Supreme Court, because of its general and future applicability, has strictly to be governed only by existing laws and rulings, uninfluenced by any extraneous considerations. Hence the suggestion for reference to a Tribunal was considered just a trap to avoid a judicial verdict and to have endorsed the executive decision of the Prime Minister by a Government appointed Tribunal, thereby closing the door of the Supreme Court. Thus, for the Akalis both the constitutional path and that of negotiation stood barred, and a sore which could easily be cured was inevitably allowed to fester.

12. Hydel Power Issue

We have indicated above how over 75% of the available waters of riparian Punjab had been allotted to the non-riparian states, and the channel of approach to the Supreme Court closed. But there was a snag still left. The agreement of 1981 among the three Chief Ministers dealt with only the water issue. Hence in relation to hydel power there could still be the possibility of the constitutional issue regarding the violation of Articles 14, 162 and 246, and item 17 of the State List by Section 78 to 80 of the Reorganisation Act being raised in the Supreme Court. In May 1984, a situation was created that the Hydel Power issue too could not be referred to the Supreme Court. For that end a new ground was found to twist the arm of the Punjab and have an out of the Court agreement regarding the hydel power issue as well. The Punjab had constructed a thermal plant at Ropar, which was to yield over 400 megawatts of electric power. For its working and cooling it was essential to draw water from the Satluj channel. After doing the cooling by circulation, the water was again to be diverted back to the irrigation channel. But preposterous as it appears, Rajasthan and Haryana both non-riparian states, objected to even this temporary use by the Punjab of the water of its own rivers. And, the Centrally appointed Bhakra Board would not allow the proposed circulation. Had Rajasthan or Haryana any justifiable claim, it could move the Supreme Court and get its decision any time during all those earlier 17 years. But the Centre, that was controlling the Punjab projects, withheld permission to get water for cooling the Ropar Thermal Plant, and raised the issue to the level of a major dispute. Instead of advising Rajasthan to follow the constitutional path and obtain the verdict of the Supreme Court, it became a self appointed mediator using the issue of the cooling channel as the ground for pressurising Punjab into entering a hydel power agreement of the kind it was made to do in 1981 regarding the water issue.

There was President's rule at the time in Punjab, and the Governor was responsible only to the Centre whose agent he was. An agreement was obtained from among the States of Punjab, Haryana and Rajasthan providing for the exclusion of the hydel dispute, which clearly involved constitutional issues, from being placed before the Supreme Court for its verdict. And the inappropriate part of the matter is that such a crucial agreement adversely affecting the long-term constitutional rights and economic interests of the entire state and its people, was signed by the Governor for the State of Punjab. He did so being fully aware of the agitation in the Punjab and the demand for a reference of the dispute to the Supreme Court. The agreement in effect provides for arbitration by a nominee of the Centre. It envisages that the Centre would refer the matter of any dispute for the opinion of the Supreme Court, and in case it declined to give such an opinion, the States would request the Supreme Court to appoint a Judge for giving an award on the dispute, and if the Supreme Court declined to do so, the Centre would itself nominate a Judge to give an award on the claims and the award shall be binding on the parties. Evidently, the object of the agreement, as in the case of the 1981 agreement, is three fold. First, it virtually gives a legal status to the baseless and unconstitutional claim of the non-riparian states

against the Hydel Power project from the Punjab rivers, even though the claims are so untenable that during the last over two decades, Rajasthan has never thought of approaching any Court for a verdict on them. Second, the decision in the case would not be by the Supreme Court, but it would by a nominee judge of the Centre, which would virtually be an award. This is evident because our Constitution does not provide for making it obligatory for the Supreme Court to give an opinion or to appoint an arbitrator at the request of two states. The very fact that the agreement provides for the third alternative of a nominee judge of the Centre, shows that the Government knew that the possibility of the acceptance of the first two alternatives is remote. Third by this agreement Punjab is barred from moving the Supreme Court and obtaining its judicial verdict on the unconstitutionality of the Reorganisation Act or the claim of the non-riparian states on Punjab Projects. Like the 1981 Water Agreement, the 1984 Hydel Power agreement closes the door of the Supreme Court for its verdict on the hydel power issue under the Reorganisation Act. In sum, the issue of the constitutional sovereignty of the Punjab over its waters and hydel power has been taken out of the purview of the Supreme Court, and made the subject of arbitration by the Centre or its nominee. Thus, the ultra vires character of the Section 78 to 80 of the Reorganisation Act would remain unchallenged and unexposed. The agreement of 1981 and 1984 are clear instruments both to legitimise the permanent channelising of 75% of the Punjab waters, and hydel power to non-riparian states, and to destroy the constitutional right of Punjab under Article 131 to have the SYL drain set aside by a judicial verdict of the Supreme Court.

13. Water Needs of Punjab

At the time of Independence the Punjabis generally and the Sikhs particularly, were the worst sufferers in the loss of men, property and lands. Lakhs of acres of well-developed land mostly colonised by them and generally irrigated by canals, had to be left behind in Pakistan. Lakhs were murdered, and the rest under threat of extinction had to migrate to India as penniless refugees.

Two facts indicate the kind of welcome they got in their country. First, the broad policy became that these refugees would remain virtually confined to the erstwhile Punjab area. There were lands in abundance, mostly undeveloped, outside Punjab, which could be made available to them and later developed, as they were subsequently done in many a case. This would have meant that these unfortunate refugees, while they could not be compensated for the colossal loss of men, moveable property and houses, could be compensated in respect of at least the area of their lands, if not regarding its quality or source of irrigation. But government policy envisaged that the refugees should be accommodated on lands the Muslim migrants of Indian Punjab had evacuated. This available land, apart from being unequal in quality to the lands Sikh and Hindu migrants had left, was extremely small in area and sources of its irrigation. Actually whereas the lands they had left were mostly irrigated by the canals, the available perennially irrigated evacuee lands were less than one third of the area they had left. The refugees had left 67 lakh acres or 39. 35 Standard acres, out of which 43 lakh acres were generally irrigated and 22 lakh acres were perennially irrigated. Against this in India they got 47 lakh acres or 24. 28 Standard acres, of which 22 lakh acres were generally irrigated and only 4 lakh acres were perennially irrigated. [10] The result was a very heavy blow in the form of cuts extending upto 15% of the land claims of the refugees. The second unjustifiable blow, as mentioned earlier, is the transfer or allocation of over 75% of available water of Punjab rivers to the non-riparian states, thereby depriving Punjab of its own water resources which could justifiably be used for the purpose of irrigating the *barani* (un-irrigated lands) alloted to the poorly compensated refugees. It is a known fact that in 1947 the Indian Punjab was, because of lack of tubewells and other irrigation, deficient in food. This gives the background.

Punjabi Suba has, at present, 105 lakh acres of cultivable land. Because of the needs of modern agriculture, double cropping, hybrid seeds, etc., minimum water needs to mature an acre of land are according to University and Government experts over 5 to 6 acre feet of water per annum for the commonly followed paddy-wheat rotation. Thus, Punjab's minimum water needs amount to 52. 5 MAF, of water per annum. Satluj, Ravi and Beas, have a water flow of only about 32. 5 MAF. It shows how deficient Punjab is in its water resources; and modern agriculture is impossible and uneconomic without ‘assured' irrigation. This means that even if the entire Punjab resources of water are utilised in the state, these would not meet even the minimum requirements for its lands, and could at most supply about 3 acre feet of water per acre.

The present position is that only about 37 lakh acres of Punjab lands are canal irrigated. The sanctioned water supply per acre of commanded area is hardly adequate for the requirements of assured irrigation necessary for modern agriculture. On the basis of minimum requirement of water, the supply necessary for 37 lakh acres comes to about 18 MAF, whereas the agreed allotment to Punjab is only about 15 MAF. It means that after 1947 out of the available

waters less than 25% have been allotted to Punjab. It is, therefore, necessary to emphasize that even for the canal irrigated lands, the peasant has, so as to reach the level of assured irrigation, to sink tubewells to make up for the deficiency of canal water supply. Accordingly, Punjab peasants have perforce sunk over 8. 5 lakh tubewells at a capital cost of over 1,200 crores. Considering the colossal loss in irrigated land the present refugee inhabitants of Punjab had suffered in 1947, the irony of injustice to Punjab in the unconstitutional allotment of over 75% of Punjab water resources to non-riparian States becomes too evident to be ignored by any academician especially when its transfer to distant non-riparian desert areas has been considered almost wasteful and poorly productive.

14. Dismal Future of Tubewell Irrigation

The second and intimately related part of the issue is tubewell irrigation in the state. It is indicative of the enterprising spirit of the Punjab peasants that they have sunk at a capital cost of about 1200 crores and on their own initiative, about 8. 5 lakh tubewells in order to irrigate another 55 lakh acres and to supplement canal water supplies so as to make it assured. But, this aspect of the matter has some serious dark side as well. The latest figure is not available but a few years back only about half of the tubewells were energised by electricity. The rest were run on diesel oil. Normally, the cost of electric irrigation, apart from the need of capital investment of Rs. 2,000 per acre, and the erratic nature of supply, is 3 to 4 times that of canal irrigation. In addition, sub-soil waters cause sometimes complications because of salinity in the underground strata. As against it, canal water has the quality to refurnish the soil with deficient micro-nutrients. In addition canals serve as natural drains.

The cost of diesel irrigation, apart from its continually rising prices and scarcity of procurement, is considered ten to twelve times higher than that of canal irrigation.

But in addition the greatest danger of tubewell irrigation, both short term and long term is, because of over-draw, the continuing fall of sub-soil water level. For this reason, during the last decade water level has gone down from 3 to 10 feet or even more. Experts have assessed the average fall on this account to be 12 inches per annum. [11] Peasants have therefore, to face the problem of periodical sinking of the water pipes and lowering of the pumping sets. The phenomenon has already reached dangerous proportions, with the result that in most areas tubewell irrigation and, for that matter, modern agriculture, have become unremunerative. Government has therefore, classified areas into 3 classes, black, grey and white. Of the 118 Blocks in the state, 69 are black, meaning that tubewell sinking is unremunerative there. Twenty are grey Blocks, meaning that tubewell irrigation is feasible, but only to a limited extent. The remaining 29 Blocks are called ‘white'. But in all these Blocks the water is either brackish, saline or very deep. There is no sweet water in these Blocks. Hence exploitation is hardly possible. So limited irrigation is possible only in 20 blocks out of 118.

But the greatest fear is that because of the continuous draw of subsoil water, by the end of the decade or the century,* a large majority of the existing tubewells would become non-functional. Dr. Dhillon of the PAU and other experts draw a dismal future of tubewell irrigation in the Punjab. Their repeated warnings are based on clear calculations. Two facts have to be ascertained in this regard, namely, the annual draw of subsoil water by the tubewells and the annual recharge of soil by rain and seepage. According to the Punjab Government white paper, the annual available subsoil water is 3 MAF. [12] Evidently, this is on the assumption that the sub-soil water level is not allowed to fall and only the recharge part is drawn each year. The second fact is the 8 to 8. 5 lakh functioning tubewells. On an average a tubewell gives assured irrigation, i.e. at least 4 acre ft. of water, if not 5 to 8 acres. It means that the annual draw of water is at least 27 MAF. This makes for an annual gap or overdraw of 24 MAF. It is necessary to state that tubewell irrigated area is 55 lakh acres and not 68 lakh acres, because, canal supply being woefully inadequate for assured irrigation, a sizeable part of tubewell water is diverted to supplement canal supply to make irrigation ‘assured'. According to another apparently inflated assessment of the Central Ground Water Board, the ground water supply or recharge is 10. 6 MAF. [13] This would give us a gap of about 16. 4 MAF per annum. There is a third method of calculation which is an assessment based on the water requirements of crops actually cultivated. The available estimate relates to the matured crops in 1986-87. These calculations, approved by the World Bank, are that the total water consumed by the crops in 1986- 87 was 37. 7 MAF. Considering the annual recharge of about ten MAF and the water supply from canals of about 15. 6 MAF (this indicates actual water utilised by Punjab because of non-utilisation of allotted water by Rajasthan and Haryana, although the allotment to Punjab is less), the overdraw comes to about 12 MAF per annum. According to these three methods the overdraw of sub- soil water is between 12 and 24 MAF per annum, leading to an average annual drop of over 12 inches, measured after the great flood year of 1988 when the

earlier falls in the sub-soil water had to a considerable extent been made up. Even in that year the water table in some Punjab districts like Ludhiana, Patiala, etc. was rapidly going down near the "danger line." [14]

In this context, the prospects are going to be dismal, especially if the existing Central policies and decisions are continued. Punjab is today irrigating 55 lakh acres from its tubewells, 50% more area than canal irrigation, and in addition the tubewells supplement canal water to give 37 lakh acres assured irrigation, which an erratic canal water supply can never itself do. These realities are making the degradation to the "danger line" inevitable, with the result that in about a decade about three fourth of the tubewells will become non-functional, thereby reducing the area irrigated by tubewells by about 40 lakh acres which would become *barani* (un-irrigated). According to existing estimates, if the Punjab user of canal water is reduced to the level of actual allotment, another about ten lakh acres would become un-irrigated. In other words the irrigated area in Punjab from both sources would drop down by about 5O lakh acres because of diversion of river waters to non-riparian areas. The fall due to the drain would be colossal, and calamitous. Its obvious injustice can be judged from the fact that a state and its people who had suffered in 1947 tremendous losses in men, property, land and irrigation are, instead of being compensated for their losses, being deprived of the natural wealth of the area, where they had come to settle after being uprooted. For, on the one hand, their natural resources which are to give them cheap canal irrigation as against the exorbitantly expensive tubewell irrigation, are being diverted to the non-riparian states, on the other hand, they are being made to face the prospects of about 50 lakh acres of their land becoming *barani* leading to catastrophic economic and social consequences. Here it is necessery to record an expert conclusion : "How long can this state of affairs last ? We must take steps to correct the situation, lest our grandchildren inherit a land returned to semi-desert conditions." [15] The basic importance of water and hydel power in our modern life and culture can hardly be over-emphasized. In this regard Dr. W. C. Lowdermilk in his report to the Economic and Social Development Council of the United Nations, writes : "The present water supplies both in developed as well as undeveloped areas are either already insufficient or will prove to be so, in the foreseeable future, which will mean a severe setback to the economic development. The rate of increase in water requirements is greater than that in population." [16]

15. Satluj-Jamuna (Yamuna) Link Canal

There is a strong expert opinion that 3. 5 MAF allocated for the SYL Canal, the waters of which have to join Jamuna waters to be lifted for irrigation in Gurgaon (in Jamuna basin), would not be available to it without substantial decrease in supply to the old running canals of Punjab, thereby reducing the irrigated area of the state by about ten lakh acres. The corresponding damage, it has been stressed, would be serious in districts like Bathinda, Faridkot and Ferozepur, especially because the ground water in those districts is saline and carries toxic elements like boron and fluorides. Supplies to the level of allotments made by the Central Government for Rajasthan and the SYL Canal would never be available from Satluj even if the MB Link were completed, although before its completion the question of supply to SYL Canal cannot arise; and the scheduled date for the completion of the Thein Dam Project is about a decade later than that of the SYL Canal.

An important factor which is forgotten while making calculations for the supply of waters to the SYL Canal, is to accept the figure of "mean water discharge" instead of the "dependable annual flow" which is the only realistic figure, because of its availability during 90% of the time. The existing requirement of three Canals, Bhakra Canal, Sirhind Canal and Doabist Restricted Perennial, is 14. 76 MAF but the "dependable flow" from Satluj is 11. 125 MAF. Hence, even if the Beas-Satluj Link worked to full capacity, the dependable flow from Satluj would not be above 13. 37 MAF. This will be the highest level, considering that the loss of availability in the Pong Dam for Harike will have to be made up by a release of about 1. 37 MAF at Bhakra for Harike canals. Therefore, these calculations show that even if the Beas-Satluj Link worked to the full, the old scheduled supply to the old Punjab canals, would hardly be met. For, as against the demand of 14. 76 MAF the total dependable supply could only be 13. 37 MAF. Dr. Dhillon in his article "*More blood than water down SYL*" and Dr. V. P. Singh, another expert, in his paper, "*What Surplus to Share*", have independently arrived at similar conclusions. The latter, writes, "The moment the SYL flows, 9. 75 lakh acres or 3. 91akh hectares will go *barren* in these districts." According to him, "apart from the minimum estimated crop loss of 900 crores per annum and loss by its effect on agro-industries and reduction in employment, the biggest damage will be the changing of saline districts into desert." [17]

16. Rajasthan Canal--An Unproductive Venture

It has already been indicated that the project for use of Punjab waters in non-riparian Thar Desert areas was proposed purely as a contrivance to convince the Indus Waters Commission that Punjab waters could be fully utilised within India. As it is, it was done hastily at the instance of Mr. Gulati, the Indian Representative before the Commission. While Pakistan would never have allowed its canal system to work according to the whims and will of the upper riparian authorities whom they considered hostile towards their interests, the Indus Water Authorities have considered Indian Projects in Rajasthan to be wasteful. They have severely warned and criticised India against taking up such a hazardous project, without proper investigation and study. We have already recorded some of their expert observations.

This criticism of Rajasthan Projects has been two-fold. First, that these Projects are economically unjustifiable, especially when the use of those waters in Punjab for lands close at hand could be far more productive and at a far less cost. Further, it has been stressed that because of lack of drainage in Rajasthan and the difficulties of creating any worthwhile drainage, these Projects would create more problems than they would solve.

Already while the Projects in Rajasthan are under construction and water utilisation is partial and at preliminary stages, the areas where stage I of the Canal has been completed, “are blighted by significant water logging and salinity. In the view of many experts on Water and Power Consulting Agencies (like WAPCOS), the problem is likely to be more acute in the stage II areas of the Canal, if the same cropping pattern and mode of irrigation continues.” The problems that the experts have warned against are : “Accelerated rise of water table, salinity, seepage, water logging and increased incidence of disease. The study warns that these long-run problems can more than offset short-term benefits like infrastructural facilities and which accrue as soon as irrigation is introduced.” Soil analysis shows that “water logging and similar conditions are spreading rapidly. Water logging and salinity account for about 34% of the irrigated area at stage I. [18] The above is the position at the preliminary stage. With time, the warning says, the conditions are going to be worse. The fundamental trouble is the lack of drainage and there is hardly any feasibility of it in the desert and semi-desert areas of Rajasthan. But the unfortunate part is that despite all expert warnings and the known wasteful and uneconomic nature of the Projects, the Centre has persisted in diverting waters of riparian Punjab into the semi-desert areas of non-riparian Rajasthan, hundreds of miles away.

17. Decision by Tribunal

We have indicated above the position of all allocations and the subsequent agitation in Punjab, culminating in the tragedies of 1984. In 1985, the Centre had at last had its own way in regard to the water problem. After 1984, the Akali leadership capitulated completely because it stood discredited both with its own people and the Central Government. They were anxious somehow to rehabilitate themselves and in 1985 agreed that the SYL Canal against which the agitation had been started at Kapoori in 1981, would be completed within months and the water issue would be referred to an Inter-state Water Dispute Tribunal instead of to the Supreme Court. Thus, they gave up a demand for which they had been agitating and struggling for the earlier two decades. In full knowledge of the fact that a dispute regarding a state river could not be referred to a Tribunal under the Inter-State Water Dispute (ISWD) Act, the water problem was placed before a Tribunal constituted for the purpose. Of course the Tribunal could not give any verdict about the constitutionality of sections 78 to 80 of the Reorganisation Act. As was feared or anticipated from a tribunal, it has, in defiance of the legal or standard definition of a basin or valley, made the following allocations: Punjab 5. 0 MAF, Haryana: 3. 83 MAF, Rajasthan: 8. 60 MAF, Delhi: 0. 2 MAF, Jammu and Kashmir: 0. 65 MAF. The overall increase to 18. 28 MAF from 17. 17 is again, as in 1981, an arithmetic projection without any ground reality. The broad ratio of allocations among Punjab, Haryana and Rajasthan remains more or less the same as in 1981.

18. Political Implications of the Water Problem

The history of the water problem shows that for over two decades the Punjab has been resisting the unconstitutional allocation of its natural wealth, and the Centre has consistently been taking steps to serve the non-riparian states even though the diversion has been considered extremely ruinous for the Punjab and its people. All attempts by Punjab to follow the straight and simple constitutional course so as to solve the problem through the Supreme Court were frustrated. The Centre could succeed in its objective because it was felt the Constitution was heavily centralised and this enabled it to interfere and intrude at its will in the state administration and functioning. Apart from that, the Centre had created institutions like the Planning Commission and the Water and Power Commission, both non-statutory bodies, that had over the years been the instruments of controlling and determining every scheme, project and activity of the state even in its own statutory field. The classic example is the Thein Dam, a state scheme for the development

of Ravi waters, costing originally only 70 crores, which for decades could not receive clearance from these bodies and the Central Government, although its cost has since risen to over 800 crores. The underlying reason for not approving the scheme is said to be the contemplated Central award of 1976, which has allotted to distant Rajasthan and Haryana share of the waters and hydel power of the Ravi, running on the border between Pakistan and the Punjabi Suba. Another classic example of the dwarfed political status and autonomy of the State is that it is not competent to construct even a cooling channel to circulate water for its Thermal plant from its own waters in its own territory.

The history of the Punjab water problem and the Central policies, decisions, doings and undoings in this regard, deeply imprinted on the minds of the Punjab that under the existing centralised set-up it was virtually impossible for the Punjabi Suba to work effectively even within its own sphere or maintain and exploit its own resources and natural wealth. For, instead of solving once for all the central issue of the Punjab problem by a reference to the Supreme Court, the Centre has been raising the matter of Law and Order. This side-tracked the real issue. There is a serious opinion in some quarters that if this simple judicial process had been followed, perhaps the course of events that led to the tragedies of Bluestar (army attack on Darbar Sahib in 1984), Wood Rose (systematic purging of the *amritdhari* Sikhs all over Punjab in 1984-85), the assassination of Prime Minister Indira Gandhi, and the massacre of Sikhs in Delhi and other parts of the country would have been avoided. But the Punjab problem still continues unsolved. Besides, the Punjab found that Sections 78 to 80, apart from being economically ruinous for the State, had placed a virtual ceiling on its economic growth, development and political progress. Because a state which in modern times could not exploit its own resources, or control and develop that wealth, could hardly be considered to have any worthwhile economic or political autonomy or status. Hence in 1978 the Akali Party reiterated its demand for an autonomous state, called the Anandpur Sahib Resolution, which the Sikh representatives in the Punjab Assembly had unanimously made in 1949, saying that Indian Constitution, as had consistently been proclaimed by the Congress Party and its leaders, should be a Federal structure with only Defence, Foreign Affairs and Communications to be the Central subjects. Because autonomy envisaged under this resolution, they felt, to be the only constitutional arrangement that could undo the drain of Punjab's natural wealth and avoid thereby its clearly imperilled socioeconomic stability and remove the ceiling on its political growth.

19. Loss of Punjab

Broadly speaking, about 19 MAF of waters of Punjab, have been allocated to non-riparian states. At the present rate of water allowance prevalent in Punjab, it would irrigate about 45 to 50 lakh acres in Haryana and Rajasthan. The statistical abstracts show that in Punjab the food grain yield per acre of irrigated land is 2. 2 tons higher than that in the non-irrigated areas. Thus, irrigation gives an additional income of about Rs. 5,000 per acre. This means an annual loss of about Rs. 2,250 to 2,500 crores per annum to Punjab and an equivalent gain to the non-riparian states each year. Further loss in the generation of employment, subsidiary industries and trade would also be considerable. Similarly, the annual loss in power and consequent loss in industrial production, reinvestment and generation of employment would easily be four time more. This loss is being suffered when Punjab's farmers are in acute need both of water and power, and its industry is in serious need of cheap energy. The farmers are losing about anything between 100 to 150 crores each year by having to resort to inefficient and expensive diesel irrigation or ill-fed electric tubewells.

Experts fear a calamitous fall of about 40 lakh acres in the area under tubewell irrigation, if the existing overdraw is not stopped. Hence, substitution of tubewell irrigation by canal irrigation is a dire necessity to avoid the socioeconomic disaster.

20. Constitutionality of the Tribunal

There is one aspect of the tangled Punjab water problem, which remains, as before, unsolved. It is true that the Centre has through a tragic course of events been able finally to get a verdict of the Tribunal regarding the allocation of Punjab waters to Haryana and Rajasthan without a prior decision of the Supreme Court on the unconstitutionality of Sections 78 to 80 of the Punjab Reorganisation Act. But an allied constitutional issue has arisen and remains unsolved, namely, the value and validity of the amendment of the ISWD Act by which the dispute of Ravi and Beas has been referred to the Tribunal. The fundamental constitutional hurdle remains, because Ravi and Beas, being not inter-state rivers, any issue about the allocation of their waters, cannot be adjudicated upon by the Tribunal under that Act, since it is not a ‘water dispute' as defined in Section 2 of that Act. Merely adding an enabling Section to the ISWD Act for allowing a reference of the Ravi Beas water issue to the Tribunal does not by itself make the Tribunal constitutionally competent, or enhance its jurisdiction to decide the Ravi-Beas water dispute, or make that dispute an inter-state river

water dispute as defined in Section 2. This dispute about a state river cannot be entertained in relation to a non-riparian state for adjudication until Section 2 of the ISWD Act is amended to include such a dispute, namely, a dispute concerning a state river as between a riparian state and a non-riparian state. And the difficulty is that such an amendment cannot validly be made, because item 56 gives powers to the Parliament to legislate only in regard to an inter-state river, and not in regard to a dispute concerning a state river. Hence neither the present amendment of the ISWD Act is of any meaning or value, nor can an amendment of Section 2 of it be validly made by Parliament under item 56 of list I, which gives powers to it in respect of only inter-state river disputes and not about a state river dispute like the one concerning Ravi or Beas. Hence, we believe, that the Punjab water and hydel power problem still remains, as before, the fundamental issue that is going to determine, on the one hand, the socio-economic health and growth of its people, particularly of the rural masses, and on the other hand, all political development, peace and amity in the state.

21. Conclusion

We have given a brief factual statement of Punjab river waters problem. Perhaps it would go down in history as the issue that has continued to be mishandled, and misrepresented for over two decades by all the actors of the scene. It appears to be a clear classic example showing how human prejudices can not only plague the course of public affairs, but also of peace between sister communities of neighbouring States that have lived in amity for centuries on end. There is little doubt both as to how ruinous, economically, socially and politically would be the diversion of Punjab waters and how wasteful and unproductive, would be those waters to the distant non-riparian desert areas in Rajasthan.

The manner in which the Central Government has persistently refused to refer the issue to the Supreme Court, has withdrawn it when it had been done, and followed every other course, excepting the simplest one, which no state or party could object to, shows clearly that the Centre had throughout the belief that the drain of Punjab waters and hydel power to non-riparian areas, was constitutionally un-warranted and unsustainable. For, as we have explained earlier, the constitutional problem remains unsolved as before. The unfortunate part of it is that it is the social, economic and political fall-outs that have caused great human suffering. And what is worse still is that it is difficult to pretend and hope that the issue would not in the future create further complications and catastrophes. Because by providing unmerited gains to million of families in non-riparian Rajasthan and Haryana, there is created a hostility of interests between the peoples of neighbouring states which could be a major hurdle against both solution of the Punjab problem and peace in the country.

To us the lesson seems to be clear that no amount of political measures can change the geographical realities that Punjab is riparian in relation to Ravi, Beas and Satluj, and Rajasthan, Haryana and Delhi territories are not. In fact, the allocation of Jamuna waters to Haryana itself concedes that.

The Punjab Rivers issue holds the key to understanding the Punjab problem and how the manner in which it has been dealt with has determined the course of socio-economic and political events, including peace and harmony in the state.

The present position is that large scale diversion of Punjab waters and hydel power is sought to be made a *fait accompli*. This diversion apart from being disastrous to the future of the state has led to a standing contradiction that while Punjab should year after year continue to suffer devastating flood losses, actually running to over a billion dollars even in a single year, the non- riparian states should reap each year a benefit of over a billion dollars from the waters of those very rivers. It is a classic case of the gross violation of the fundamental principle of equity on which the riparian law in every country is based. This diversion is the real hurdle to its solution. This being against the spirit and letter of our constitution, forms the stumbling block why peace, prosperity and growth in the state cannot be restored till it is removed. This is the essential aspect of the problem, which needs serious study and consideration for its understanding by every student and scholar. In sum, the Centre wants unjustifiably to drain Punjab of its natural wealth, which Punjab's well-wishers seek to avoid because of its evidently ruinous effects.

References

[1] I. G. Stark in his book *An Introduction to International Law* says, “Where a river lies wholly within the territory of one state, it belongs entirely to that state and generally speaking no other state is entitled to rights of navigation on it. Also where a river passes through several States, each state owns that part of the river, which runs through its territory.” Quoted in the Council of Sikh Affairs : *The Punjab River Water Dispute* (Chandigarh, n. d.), pp. 3-4.

Bajwa, Rajinder Singh : *Punjab Rivers and the Origin of the Riparian Rights* in *The Spokesman*, April 1,1987.
[2] I. G. Stark quoted in the Council of Sikh Affairs, */bid*.
[3] Government of India : *The Report of the Narmada Water Disputes Tribunal*, Vol. III (New Delhi 1978), p. 30.
[4] *Ibid.*, pp. 25-26.
[5] *The Los Angeles Times*, Los Angeles, February 19, 1988, pp. 1, 32.
[6] Council of Sikh Affairs, *op. cit.*, pp. 7-8.
[7] Alloys, Arhtur Michal, quoted by Ram Narayan Kumar and Georg Sieberer; *The Sikh Struggle* (Delhi 1991), pp. 200-201.
[8] *The Tribune*, December 16, 1981, *The Indian Express*, January 1, 1982.
[9] Council of Sikh Affairs, *Memorandum Submitted to the Cabinet Sub-Committee* (Chandigarh 1985) p. 6.
[10] Rai, Satya M : *Partition of Punjab*, Delhi, 1965, pp. 66-67.
[11] Dhillon, G. S. (Professor in Punjab Agriculture University, Ludhiana) : *Before the Well Runs Dry* in *The Tribune*, March 15, 1990.
[12] Government of Punjab : *White Paper on 1981 Water Agreement*.
[13] Dhillon, G. S., *op. cit.*
[14] *Ibid.*
[15] *Ibid.*
[16] Council of Sikh Affairs : *The Punjab River-Water Dispute* (Chandigarh, n. d.), p. l2.
[17] V. P. Singh : *What Surplus to Share?* in *The Tribune*, (October 18,1990).
[18] Srivastva, Sanjeev : *Ecological Damage in the Desert* in *The Indian Express* February 16, 1991