

Water crisis in East and West Punjab

Let's tackle it with a steady application of science, says Manohar Singh Gill

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AS THE long hot summer sizzles, men's thoughts in Lahore and in Amritsar turned to water. It is scarce on both sides of the border. When the British finally and fully took over the Punjab in 1849, their thoughts turned to the possibility of engineering for agriculture.

In the 1860s they built the first canal in the Gurdaspur-Amritsar area. In the period 1880-1920, they built the great canal colonies in the west Punjab.

The life-giving water was spread over the Baars, pushing back forever the great story of buffalo herder Ranjha and the peerless Heer. The open scrub lands dotted with Kikar and lusty rivers was replaced with wheat and cotton fields and vast citrus gardens.

The graziers disappeared. Sikh farmers having little land in the impoverished East went West and by the 1930s were becoming fat and prosperous Zamindars. Sadly, just when the fruits were coming they were pushed back East. The political battle of the 1940s was also a land battle. Someone said to me in Lahore once, "we are land rich". There they added to their holdings, howsoever.

In the East, Tarlok Singh, ICS, devised the graded cut for Nehru, to settle far too many farmers, on far less land. In the Sixties and Seventies, the Punjabis helped by cooperative loans, put down nine lakh shallow tubewells, built the Bhakra, and created the Green Revolution. I remember in my Amritsar village, sweet water was just 15 feet down in the well; by the side of our land, passed a small canal, perfectly designed by the British. In the summer, we grew green sweet smelling Lucerne, and other fodders, and the buffaloes gave much milk.

In the West Punjab, they did not share the land bounty fairly. The few at the top took the most. But still in their skewed farm sociology, they prospered with good harvests, more citrus orchards and plenty of water to waste.

In the new century, all this changed. In 1960, Jawaharlal Nehru and Ayub Khan signed the Indus Treaty in Karachi, crafted by the World Bank



Illustration: Kuldeep Dhimman

head, Eugene Black. For 50 years this worked well for both Punjabs. Both built the Bhakra, the Beas and the Tarbela dams and expanded irrigation. My Punjab added nine lakh tubewells through co-operatives. The other Punjab failed with their public sector tubewells and remains largely dependent on canal water.

Sixty years have drastically reduced the comfort of 1950 on both sides. In Pakistan, the population growth from 50 to 175 million has put an unacceptable burden. This has reduced the water availability per capita, per year, from 5000 cubic feet in 1960 to 1500 today. In our Punjab too, the population, over 60 years has increased, but at a lesser rate.

In the East Punjab, in 1947, 6000 cubic meters of potable water was available per person, per year. Now this has been reduced to 1600 cubic meters. It is estimated to fall to 1147 cubic meters in 2050. However, the nine lakh shallow tubewells, now dangle dry. The rich have started digging deep, to 300 feet or more, with submersible pumps, to grab the water.

The small farmers who predominate, cannot afford the cost and are being dried out. One deep tubewell will dry up a hundred around it. The water table has gone far down and this situation will lead to social tension. We read every day that 95 per cent of East Punjab's development blocks are in the grey area for tubewells.

In the Southern Punjab and some other pockets, the underground water in any case is salty. The West Punjab too faces these grave questions.

As a child I went to Sargodha in the West to stay in the new lands. The land, the cattle and the people smiled. Now I read of Ghanzafar Ali, a farmer in Chak 95, Sargodha and his woes. He says, the water crisis means life or death to him. His regular supply is not coming. He cannot grow the fodder and the cattle will starve in summer. There are extended closures of the canal.

According to him, the crisis is in the entire state, but particularly in Sargodha-Faisalabad. He worries about the weather changes and finally laments, "we are tied to river water, dams, rain-

fall, and tubewells. You take away the river water and this place will turn into a wilderness, it once was".

This is exactly the warning Calvert, ICS, gave in 1928, in his classic book, *The Wealth and Welfare of the Punjab*. In Lahore, aggressive leaders challenge the Indus Treaty and accuse India of not being fair. Swiss arbitrators are brought in to adjudicate. The Americans with their satellite studies have recently put out ominous reports of severe and steady ground water depletion in both Punjab and Western Uttar Pradesh.

In a convocation address at Punjab Agriculture University in Ludhiana on November 5, 1998, I had warned of the crisis and tension that will come, within and without countries on question of water. We see it already and I worry of ten years hence, with more population, more demands, more anxiety, and hysteria.

What should the two Punjabs do? What should India do? I know we will have to rise above and beyond all politics and focus on this crisis which will require difficult and bitter

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solutions. Scientific solutions exist, and more can be found. But they will have to be applied with a will and firmness over long periods to make any visible difference.

As Development Commissioner, Punjab (1985-88), I had visualised that the time had come to license and regulate tubewell sinking including the permissible depth. All must share fairly, and not take the maximum by means of wealth and power.

I also felt that it is very easy in the computer age to monitor all nine lakh tubewells all the time to know the depletion and the recharge; to be able to plan and administer the fair share and use of groundwater.

I would appoint a High Commission-

er for Ground Water Management for the Punjab with full scientific staff, and powers, reporting only to the Chief Minister. He should also present an annual detailed written report to the State Assembly. A more balanced crop plan has to be insisted upon.

I had said in Ludhiana that the Punjab is not a great agriculture state. It is only a grain growing factory and factories have lock outs. We are facing one now. In our Punjab, we faced an unprecedented crisis when far too many people returned from the West, to be settled on too little of poor quality land.

We created a new Punjab, which since 1966 has been providing the surplus for the country to avoid foreign imports. If we face up to this new crisis in the new century, we certainly can overcome it. Let us use the full scientific knowledge of the world to lay out the efficient system of water usage like the Israelis.

Our British canals are in a state of collapse and flood irrigations will not do. We also need to have a more balanced crop regime. This requires the

Punjab Agricultural University to be revived and made efficient.

As for my friends in the West, they should, as their Foreign Minister has said, stop wasting 40 per cent of the canal water rely on their collective will and effort and not allow people to mislead with the comfort that we have no shortcomings. Both Punjabs should face the water crisis with courage and a steady application of science. Else, they are in trouble, which won't go away. ■

The writer is a former Development Commissioner, Punjab, and Secretary to Government of India, Department of Agriculture. He is currently a Union Minister