

Chashma Right Bank Canal ***Messing with indigenous irrigation systems***

The present water crisis and the inter-provincial disharmony over a uniform model of Vision 2025 raise serious doubts about whether Chashma Canal would maintain a sustained irrigation in the region

By Wasim Wagha, DAMAAN, April 2002

With a cost-over-run higher than 40%, Chashma Right Bank Canal is turning into a 'white elephant' for its donors, Asian Development Bank and KFW, a German funding agency. This is the first lined canal in the country and has so far acquired more than thirty thousand acres of land for its huge water regime and subsequent flood mitigation measures, which altogether include the main canal, tributaries, minors, escape channels, super passages, flood carrier channels, siphons and culverts.

In order to legitimise such a huge infrastructure and livelihood disruption, the implementing authorities introduced the project area as water-starved and the existing irrigation systems as outdated. The reality, however, is different. The project area of Chashma Right Bank Canal (CRBC) consists of nearly 200 kilometers long fertile plains, locally known as Damaan, between Dera Ismail Khan and Dera Ghazi Khan. On the west stands the Salaman Mountain Range and on the east flows the river Indus; the distance between the two varies from 15-25 kilometers of which CRBC claims to irrigate only 7-8 kilometers wide middle strip. Contrary to the widely held ignorance, the area has a variety of irrigation systems, mainly established and maintained by people themselves: Rowdkohis (hill torrents), Kala Panni (black water), low-intensity floods, Masoo Wah, Gang(s), Chah(s) and Tube Wells.

The important aspect about this indigenous irrigation network is that after centuries' experience people discovered its mechanism and consolidated their lands accordingly, and had complete access and control over it. This article gives a brief description of these local irrigation sources.

Rowd Kowhis (Hill Torrents): People in the area have been irrigating their lands for centuries through this traditional irrigation system, which depends on monsoon rains in the Salaman Range. Rowd Kaurra, Rowd Wahoo, Rowd Kunwanh, Rowd Bathi, Rowd Sangharr, Rowd Soori and Rowd Notak are well known for huge water discharges; the peak water discharges for Kaurra and Sangharr hill-torrents are 42,816 cusecs and 11,9,744 cusecs, respectively. The sharp slope to eastward, the slight slope towards south and the high speed have altogether made the Rowd Kowhis an unpredictable phenomenon. The large quantity of silt is another factor, which has made the water routes a 'continuous variable'.

Through centuries of experience, the locals have, however, discovered their mechanism; they block the hill-torrent on specific points in the west, well before they become uncontrollable and divert them into hundreds of smaller irrigation channels established by themselves. Filling up the fields with this enriched water once in season was enough for the local crops and seeds eg Jooar, Bajra, Channa, Wheat, Usoon and Sarmi (mustard) etc. The agricultural produce in the area was so abundant that a local freedom fighter Sardar Aslam Khan, long ago, established an independent local bank where grains and livestock feed were stocked and lent to the needy

without interest. Betrayed and annoyed, the British issued arrest warrant for Sardar Aslam Khan who had to take refuge in Afghanistan.

This potential source of irrigation has, however, become vulnerable to Chashma canal which cuts it as a straight line. To avoid flooding and any damage to the canal, Wapda has directed these hill-torrents to the river Indus through huge Flood Carrier Channels (FCCs). People have serious concerns over flooding and loss of their livelihood rights over these hill-torrents.

Kala Pani: This irrigation source has derived its name from the ancient, local name of Salaman Mountain ie Kala Paharr (black mountain). Compared to seasonal Rowd Kowhis, this water remains available round the year and irrigates the lands adjacent to the mountains. People have by themselves domesticated it into an excellent network of channels locally known as wah or gang; Jjam Wah, Raj Wah, Lakhi Wah and Gang Wahoa are a few to name. Of these, the Gang Wahoa is the biggest water channel, equivalent to a small canal, which keeps flowing even in drought season. Government of Pakistan's indifferent attitude towards its maintenance has put this irrigation source into a gradual extinction.

Larrha/Laarrhi is another source of irrigation, which consists of the rains in the upstream areas; Laarrhi stands for the small water channel while Larrha for the bigger. One such arrangement (locally known as Bandobast) is Larrha Sultan, which starts from Kot Qaisrani and runs in the north-south direction to village Thatha Lighari, Tibbi Korra Khan Qaisrani and so on. This channel irrigates hundreds acres of both state and private lands in the area. While constructing a link road at ninety-degree angle from Indus Highway to Jhoke Bodo in the west back in 80s, the National Highway Authority recognised people's rights over Larrah Sultan and provided it a 9x5 feet wide outlet under the road. In total contrast, however, Wapda completely blocked the same water channel while erecting a protection embankment parallel to the said link road. When people protested and went to the court, Wapda offered only 1x1 feet pipe. The case is still in the court.



(left to right) National Highway Authority provided 5x7 ft outlet for Larrah Sultan; While constructing protection embankment in Thatha Lighari WAPDA, however, reduced the same into 1x1 feet outlet.

Masoo Wah: Floods of manageable intensity in River Indus in the summer season irrigate the lands on the east bank of Indus. These lands are commonly called Bbeit (delta). As a matter of fact, people in the area have been quite prosperous compared to their neighbouring communities.

In summer, people in the neighbourhood, alongwith their livestock, used to migrate to Bbeit for cultivation and abundant pastures. Masoo Wah is basically an inundation canal derived from River Indus on the wish of Masoo Khan Nutkani (first)-the Chief of Mangrotha State, long before partition. This canal runs from north to south and irrigates a long tract of land in the east of Indus.

The irrigation department and local district councils have been doing a perpetual de-silting of this canal but abandoned it soon after the Chashma canal project matured. Despite repeated request from the locals, the implementing authorities of Chashma canal did not benefit the existing irrigation structure of Masoo Wah and subsequent kasies (watercourses).

Chahi Nizam (Well system): Although the water table in the upstream areas is quite low, however, it improves in the downstream areas in the east. People had dug wells, run by bulls, to irrigate higher lands, where the above said irrigation channels were not accessible. Local population was satisfied and well adjusted with these chah(s). The Chashma canal water regime has mostly cut these wells from their respective command areas and turned them into a needless and outdated technology.

A similar but modern technology was the **tube-wells and turbines**, run by diesel and electricity. People spend millions of rupees on these turbines and peter machines, which the CRB canal ruined in no time by leaving these machines on one side and throwing the lands on the other. The present Chashma Right Bank Canal and its huge water regime stand in the way and against the above tradition irrigation systems. There is a clear difference between the two: first, the traditional systems used to spread out and irrigate the entire (15-25 km wide) area between Salaman mountain and Indus, while the CRB canal claims to irrigate only (7-8 km wide) middle strip; second, water through indigenous systems was almost free, while the water from CRB canal would cost a huge water tax which may catch the momentum 'petrol price hike'; third, the traditional system was all in control of people themselves, while on the contrary, people have no control or right over the modern irrigation system of CRBC; fourth, for each Rowd Kowhi, Wah, Gang or Chah, people themselves designed the watercourses the way it suited them, while in case of CRB water regime (distributaries, outlets, watercourses, minors etc.) all their suggestions and requests were denied.

The present water crisis and the inter-provincial disharmony over the uniform model of Vision 2025, particularly the resistance against Thal Flood Water Canal both from Sindh as well as the project area itself, raise serious doubts about whether Chashma canal would maintain a sustained irrigation in this small strip of huge Damaan area. While on the other hand, it has so far messed up with the indigenous irrigation systems by either terminating them or routing them to River Indus, and inserting a parallel, ill-designed water regime in place.