WATER CONFLICTS IN INDIA
A MILLION REVOLTS IN THE MAKING

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K.J. Joy
Biksham Gujja
Suhas Paranjape
Vinod Goud
Shruti Vispute

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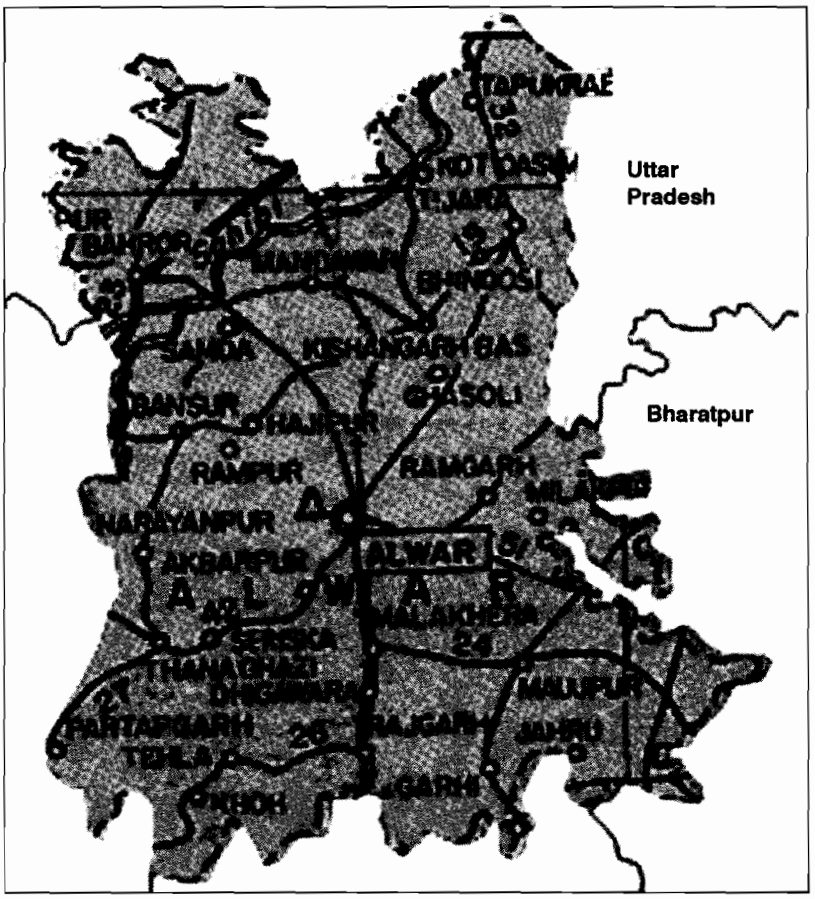
Lava Ka Baas
Traditional Water Harvesting Structure: The Community behind 'Community'

Prakash Kashwan

THIS CASE STUDY IS ABOUT A TRADITIONAL WATER HARVESTING STRUCTURE CONSTRUCTED on a drain in Lava Ka Baas (LKB) village of Thanagazi block, Alwar district in Rajasthan. Ironically, while the battle was apparently fought to protect community rights over water resources, this study highlights the failure of strengthening community institutions, a must for ensuring equitable distribution of benefits.



Map 1. *Map showing the area of conflict: The Thanagazi block in the state of Rajasthan.*

Lava Ka Baas Builds Its Own Water Harvesting Structure

Tarun Bharat Sangh (TBS), a non-government organisation (NGO), began work in the Thanagazi block in 1985. The Government of Rajasthan had declared four blocks in the region as 'dark zones'.[1] TBS intervened by constructing '*johads*', which are traditional rainwater harvesting structures. They are semi-circular earthen ponds that collect the runoff from tiny streams and rivulets in a micro-catchment. Between 1984 and 2000, some 2,264 *johads* were constructed (Pangare et al., 2003). TBS and several other national and international NGOs supporting its work reported a significant increase in the groundwater table. The area was subsequently declared a 'white zone' by the State government. Five rivers, Bhagani–Teldehe, Arvari, Jahajwali, Sarsa and Ruparel, which had been reduced to seasonal rivers, were reported to have become perennial in 1995, benefiting some 250 villages.

The work on building the 80 m long and 12 m high *johad* at LKB was completed in less than four months beginning March 2001. TBS's Gopal Singh—a *gajdhar*, meaning a rural engineer—with many *johads* to his credit, 'designed' the structure. Noted industrialist P. K. Rajgarhia gave Rs. 5 lakh for the project, and the villagers of LKB and nearby Bhagdoli village pooled the remaining Rs. 3 lakh required for constructing the *johad*.

The Government Objects

Thrilled with its big *johad*, the *gram panchayat* invited then Chief Minister Ashok Gehlot to inaugurate it. During an administrative drill preceding the visit, District Magistrate Tanmaya Kumar Sinha declared that the structure violated a 1910 agreement between the erstwhile princely States of Alwar and Bharatpur that entitled Bharatpur to 55 per cent of Ruparel's water, and that the pond would jeopardise water sharing between the two districts. On June 20, 2001, the Rajasthan Irrigation Department notified TBS that the LKB *johad* was constructed in violation of the Rajasthan Irrigation and Drainage Act of 1954. It asked TBS to stop construction work and demolish the completed portion within seven days or face action under Sections 55 (3) and 58 (2) of the Act that permits the accused to be arrested without a warrant.

Fig. 1. *Lava Ka Baas Johad in October 2001.*

In reply, Rajendra Singh, Secretary, TBS, reminded the Irrigation Department that its own 1998 study had found that the construction of upstream water harvesting structures had not curtailed the downstream flows of nearby Arvari river and that the downstream flows had actually increased. TBS argued that the *johad* would revive the Ruparel and make it a perennial river. In an interview given to the newspaper *Today*, Rajendra Singh declared, 'At least 70,000 people would benefit directly while another two-and-a-half thousand would benefit indirectly from this check dam' (Dasgupta, 2001).

Irrigation Department officials landed in LKB on July 1, 2001 with earthmovers to demolish the structure. Villagers responded by laying siege to the structure. Sensing conflict, district irrigation officials halted the demolition but Rajasthan Irrigation Minister, Kamla Beniwal said, 'Every drop of water that is received through the rains comes under the Irrigation Department and any activity related to the storage of water without any prior permission from the Irrigation Department would not be tolerated' (*Hindustan Times,* July 3, 2001).

Highs and Lows

The incident catapulted LKB and TBS into the limelight in an unprecedented way. The Centre for Science and Environment (CSE), a prominent NGO, launched a concerted media and civil society campaign against the government's attitude. International organisations responded favourably to the online lobbying efforts of the CSE. Incidentally, Rajendra Singh received the 2001 Ramon Magsaysay Award for Community Leadership, though it would be unfair to attribute it to the LKB incident. The CSE also constituted a commission to look into issues of structural safety, violation of law, and the adverse impact of the *johad* on water availability downstream. The commission included top civil society leaders who met the Chief Minister to convince him of the viability of the structure and the approach.

The conflict peaked two years after the controversy, when the LKB *johad* was breached on July 10, 2003 due to torrential monsoon rains. The bureaucracy was quick to ridicule the very idea of building a water harvesting structure based on 'rural engineering' and said that their stand had been vindicated. A TBS team which visited the spot for an assessment attributed the breach to the collapse of six upstream dams—some built by the State government under drought relief work the same year. The TBS informed the media that the villagers wanted to lay pitching on the dam, but the Irrigation Department, the police and the district authorities prevented them from doing so. Post-2003 monsoons, the Tarun Bharat Sangh rarely raised the LKB issue again.

Not Much Scope for Dialogue

The Irrigation Department throughout maintained that the dam was technically weak and that sufficient precautions were not taken to strengthen it. However, the technical committee's report and the notices sent to TBS and Rajendra Singh prior to the enquiry revealed that the structure was built without departmental permission. TBS and CSE maintained that people must be allowed to take control of local natural resources without having to negotiate bureaucratic hurdles. They also pointed out that catchment deforestation had reduced the Ruparel river to a seasonal stream three decades ago. They rejected the validity of the 1910 agreement signed between the two erstwhile feudal States of Alwar and Bharatpur.

The possibilities of a dialogue between the department and TBS seemed remote, owing to ongoing confrontations between the two since 1987 when the department issued a series of notices asking the TBS to stop its work of 'damming' the rivers. The LKB incident was the culmination of a rivalry between the

department and an organisation that refused to be cowed. To CSE goes the credit for mobilising top leaders and the national media. It built pressure on the state government, forcing it to ultimately withdraw the demolition orders.

Table 1: Key Institutions and People

S. no.	Key institutions/ People involved	Position and impact on the conflict
1.	TBS and Rajendra Singh	Rajendra Singh and TBS promote a vision wherein communities are regarded as being fully capable of dealing with local development and governance issues. Inherent inequities and contradictions in communities do not really figure in their scheme of things. This has not changed despite a few evaluations that have raised this issue very strongly.
2.	People of Lava Ka Baas	Many in the village felt that arrangements should have been made to ensure equitable sharing of benefits. This did not mean that they had any sympathy with the actions of a government that left them to fend for themselves during the severe drought years.
3.	Centre for Science and Environment	CSE has championed the cause of rainwater harvesting at the national and international levels. It mobilised civil society and the national media against the government's decision.
4.	Government and Irrigation Department	The department saw the *johad* and the work of TBS as a challenge to its hegemony over water resources management. State government and politicians generally adopted a hard stand against TBS.
5.	Media (Local/National/ International)	Masterly media management by CSE and TBS brought the media to Lava Ka Baas who highlighted the rights of the people.
6.	Civil Society	Some of the best technocrats in the country supported the village community and the NGO.

Another Look at LKB Technology

In order to challenge the dictates of the Irrigation Department, the CSE commissioned Professor M. C. Chaturvedi to undertake a scientific analysis of LKB *johad*. To quote from his report: '*Preliminary studies*'[2] show that the system has much higher capacity than that required for the storage of maximum annual runoff.... A more detailed analysis will be made after obtaining all the information and if any shortcomings are noted they will be rectified well in time.... Measures for upstream and downstream slope protection will be undertaken' (Chaturvedi, 2001).

This indicates that the structure was indeed vulnerable and needed additional work, investment, care and vigilance. In the past too, eminent experts have analysed the indigenous techniques of building water harvesting structures adopted by TBS, notable among them being G.D. Agarwal (retired Professor, Indian Institute of Technology, Kanpur). However, assessing the viability and robustness of an indigenous technique is quite different from assessing the robustness of the actual structures.

Community Effort, Private Benefit?

Reports by Professor Chaturvedi and others suggest that significant support for the structure in question poured in because it was a 'community initiative'; the structure would benefit the poor who had been neglected by the State machinery. It is therefore important to critically analyse the strength of community institutions and to examine how the *johad* benefited various segments within the community. Of the hundreds of media and other reports, there are only a couple that dwell on this issue. Civil society could benefit from carrying out serious introspection on the equity aspects of this work.[3] The analysis that follows derives from evaluation reports by Kumar and Kandpal (2003), and Pangare et al. (2003).

> The location of the *johad* was such that to lift water for irrigation, the water had to be brought to a minor ridge (*raadi*) after which it could be taken to the main agriculture fields in the villages of LKB and Bhagdoli. This could be done only by using a submersible pump. As the village transformer had a limit of 25 hp, only three submersible sets (each 7.5 horsepower) were running during February 2003. In addition, eight diesel pumps owned by people from Bhagdoli and three from LKB were lifting water from the bed to irrigate lands lying on the inside of the ridge, where it could be lifted with ease without the use of a submersible pump (Kumar and Kandpal 2003: 51).

The *johad* also led to groundwater recharge. 'However, all groundwater recharge was towards Bhagdoli. Thus 25 borewells were sunk in Bhagdoli of which 20 yielded excellent water at a depth of 400 feet. In contrast, a farmer from LKB dug down till 615 feet without finding any water' (ibid.). On the other hand, as per the reports published by CSE, TBS claimed that the water in the check dam could take care of twelve neighbouring villages and additionally more than 100,000 people would benefit by the 'recharge of thousands of defunct wells located downstream' (*Down to Earth*, online edition, July 31, 2000).

Private investment made for irrigation using the water from *johad* in the two villages of Lava Ka Baas and Bhagdoli during 2003 was worth Rs. 1,657,000 (Kumar and Kandpal, 2003: 51). In this way, rich farmers who owned more than 50 *bighas*[4] (5 ha) were the ones who benefited the most. Of the forty-one families in Lava Ka Baas, thirty had landholdings of less than 10 *bighas* (1 ha) and none of them derived any irrigation benefits at the time of the study. The study also mentions that the *gram sabha* (the local institution promoted by TBS) was more or less defunct (ibid.). This is further supported by Pangare et al. (2003), wherein the evaluation team concluded that a majority of the water harvesting structures constructed by TBS were private assets and not community assets. Even in the case of community structures, no mechanisms were developed at the village level to ensure that benefits were shared systematically and equitably.

Excerpts from an article published in *Manushi* and based on an interview with Rajendra Singh also help us in understanding the development approach adopted by TBS. Rajendra Singh was convinced that 'the Leftist obsession with class struggle, "minimum wage" legislation sought to be implemented through a corrupt and insensitive bureaucracy or propagated through culturally alien, western educated political activists have led to severe fragmentation of the village society. 'Our villages don't need class struggle, but strengthening of their mutual bonds which traditionally knit various caste groups into mutually interdependent and cohesive village communities' (Kishwar, 2001).

While the ideologies of the 'Left' and those of 'western educated political activists' must be debated, no second thoughts can be entertained over the judicious use of public resources for the emancipation of

the masses. There is an urgent need to challenge developmental approaches that go overboard in extolling the virtues of greenery without tracing the hands that own the land and harvest the fruits of public money.

Notes

*Map 1 by author, figure from *www.rainwaterharvesting.org*

1. An area where the groundwater table has receded below recoupable level.
2. Emphasis added by this author.
3. For an incisive analysis of this issue readers are advised to refer to Baviskar, Amita (2002). Incidentally, media campaign of CSE on the much celebrated success of Jhabua Watershed Program is at the center of this analysis.
4. 4 bighas = 1 acre

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