

MICRO-LEVEL DISPUTES

Failure of Community Institutions

Shapin River Basin in Jharkhand

This case study focuses on a group of eight villages in Pathargama block of Godda district of Jharkhand, highlighting water use conflicts between and within villages and the failure of community institutions in dealing with them. The outcomes of these conflicts were the depreciation of the resource base, flash floods and fragmentation, and weakening of traditional institutions. The situation can be resolved by augmenting the resource base and focusing on strengthening village institutions.

**PANKAJ LAL, KAMALDEO SINGH,
KAPILDEO PRASAD**

Rainfed agriculture is the primary means of sustenance in rural India and Godda district in Jharkhand is no exception. More than 96 per cent of its population is rural and only 14.21 per cent of land is under irrigation. The district depends mostly on the seasonal river Shapin, a name that literally means snake-like or serpentine, and farmers in Pathargama block depend on it for irrigation. Shapin has two specialities: firstly, it has no outlet, which means that its flow is consumed within the district; secondly, the riverbed is at a height greater or at the same level the fields on its banks, which means the water does not need to be lifted.

This case study focuses on a group of eight villages in Pathargama block of Godda district and on water use conflicts between and within villages and failure of the community institutions in dealing with them. These villages lie in the command area of a dam built in 1971 on the Shapin in Barkop village with the help of an NGO named Gadadhar Mishra Smarak Khadi Gramodyog.¹ The dam is situated at a distance of 4 km from Pathargama, and benefits about 11,350 people and irrigates 2,400 ha of land (see the table).

Eighteen kilometres further east is a large dam on the Sundar river. The villagers feel that if the Barkop dam is linked to the

Sundar dam, irrigation potential can increase to 6,000 ha. The state government tried to link these dams but a 1 km canal stretch could not be completed. The command area of dam has a slight slope from north-east to south-west and as mentioned earlier, the riverbed lies higher than the fields it irrigates.

Two unlined irrigation canals – Ghatkuraba canal upstream and Siyaardih downstream supply water to fields lying on both sides in the command area. The farmers make their own arrangements to take water from the canals to their fields.

The command area has highly fertile black soil. Sixty per cent of the working population are cultivators and 24 per cent are agricultural labourers. There are two cropping seasons, kharif and rabi. During kharif, paddy is the major crop, cultivated in 95 per cent of the area, while wheat, maize, pulses, peas and mustard are cultivated in rabi season. The productivity of paddy varies greatly from Rs 6,250 to Rs 37,500 per ha.

Committee Forms and Committee Declines

In 1971, at an NGO's initiative, an advisory committee consisting of five villagers and two ex officio NGO representatives was formed for site selection and facilitating the construction of the dam. The committee members comprised farmers

with big landholdings of more than 4 ha and none of the musahars (a scheduled caste community) are members of this committee. After construction of the dam, the same advisory committee was converted into a user group's management committee. It was responsible for maintenance of the dam and unlined canals and decided on access, use, contribution, etc.

An annual charge per bigha (a local measure of land equal to about 0.27 ha) was levied for water and stands presently at about Rs 94 per ha. The marginal farmers (less than one bigha, i.e., 0.27 ha) were supposed to contribute in terms of labour. A watchman was employed to take care of the dam and was paid from the collections. Other expenses incurred were for dam maintenance and upkeep of canal streams. The committee meetings were not held at regular intervals, but only when there was a need to take a decision or arbitrate in conflicts.

The NGO members in the committee did not have much to say from the beginning. During the first 10 years, everything went on smoothly as all community committee members made decisions collectively and took care of whatever needed to be done. In the next 10 years the decisions and responsibilities were limited to just two members, Deendayal Roy and Kapildeo Prasad. The watchman left in 1991 and a replacement could not be found. Managing the dam and the committee's work became a tedious task. Roy and Prasad could not devote as much time and energy as earlier. Defiance was building. To address the situation, a subcommittee drawn from the youth was formed.

Neither the committee nor the subcommittee members were compensated for their time. Becoming a member was considered a matter of prestige and respect. However, collecting money from reluctant people, using the funds effectively and ensuring equity was a tiresome and thankless job, and soon most of the new sub-committee members deserted it, leaving aside one individual, Arun Kumar, to manage it. By now, the committee and the subcommittee had almost become defunct. People started making individual efforts to carry water to their fields. At the same time, problems of free riding were on the rise while user charge collections dipped. One of the reasons it had been collected was maintenance, though contributions were very small and insufficient for proper upkeep. The contributions have gone down

after 1991 and last year they totalled a paltry Rs 5,000.

In short, what left was a weakened institution and insufficient funds. Conflicts surfaced both within and between villages.²

Conflict between Villages

The villages are located at different heights. The better located villages have to spend less money and labour to get water to their fields and they also get it more easily. The conflict usually arises when there is scarcity, because the villages putting in more time and effort end up not getting enough water, while those who spend less get enough. As mentioned earlier the Shapin has no outlets and is prone to sudden rise in water level when there is a heavy downpour. If the dam gates are not opened in time, flash floods occur. With no watchman to open the gates, frequent flash floods begin to occur.

In fact, the dam gates were not even maintained, and now they are completely unusable. No wonder then that the largest flash flood in the area occurred in 2000, which submerged all nearby villages, and 50 bighas (13.5 ha) of fertile land were covered with sand.

Conflicts within Villages

Two distinct user groups can be identified in the command area. The first are the head-reachers who have land adjacent to the canals. All field channels have to pass through their fields first, and unless there is ample water in their own fields they don't allow it to pass on to others. The second are the tail-enders who are much more active in the upkeep of the canal and the channels because irrigation in their fields directly depends on quality water management.

Proper dam and canal maintenance means increased water availability; it translates into water for tail-enders. Around 70 per cent of the tail-enders paid water charges before 1991, but now only 30 per cent do so. Only 25 per cent of the head-reachers have been regular contributors since 1991. In the lean years, all head-reachers are able to irrigate their land but few tail-enders can do so. The resentment is caused by the fact that the head-reacher who hasn't contributed irrigates his land, while the person having a field just behind him, is unable to irrigate his land, in spite of contributing.

The head-reachers and tail-enders both need water to irrigate their fields in the lean years. The tail-enders have been arguing for contribution based benefit; everyone who is using a resource should pay. The failure to curb free riding by head-reachers has prompted them to indulge in free riding themselves. This phenomenon is also observed between villages, where the upstream villages try to get more water at the cost of downstream ones.

Within the villages too, there was a sharp increase in conflicts; between 2001 and 2003 there were around 30 conflicts a year in Ghatkuraba village alone. The villagers report that such tussles have increased substantially after 1991: that there were about 5 to 10 water-based conflicts within a village whereas now there are about 20 to 30 such cases; conflicts between villages were a rarity before 1991, there are now about two in a year.

The potential for conflict within and between villages is at an all time high. In the years of water scarcity, the conflict is at its ugliest, but when there is enough rainfall, the year passes virtually without problems. For example, in 2004, there was good rainfall and no major quarrels were reported. The best years were 1971-81 when the committee was active. The subcommittee is not only inefficient but also lacks widespread acceptability. The free riding tendency has increased. The flash floods are synonymous with heavy rainfall; the dam gates have holes in it and are out of order. Conflicts flare up in an instant and spread like wildfire, mainly due to the lack of a controlling institution.

Elders Resolve a Clash

Ghatkuraba village is at a higher altitude than Siyaardih, but the former is given a larger and the latter a smaller opening; so normally the two canal streams are such that both villages get an equal share of water. The years 2002 and 2003 were consecutive lean years and there was inadequate water for irrigation. The farmers

Table: Villages Benefiting from Barkop Dam

Village	Cultivable Land (ha)
Barkop	360
LakhanPahadi	480
Birsaini	60
Siyardih	180
Ghatkuraba	520
Panjharar	280
Udaipura	216
Chaura	240

had begun to get restive, fearing poor harvest in consecutive years. One night in 2003, the farmers from Siyaardih cleared and enlarged the opening of the canal resulting in the entire supply being drawn into their canal. When Ghatkuraba farmers came to know of this in the morning, 150 farmers marched to Siyaardih. There were angry discussions, scuffles broke out and people drew out guns and rifles. About 20 persons sustained injuries and three needed urgent medical attention. The situation was brought under control by the village elders who decided to settle the issue amicably. Three representatives from each village were selected for arbitration and they judged that Siyaardih farmers were at fault. The old system was restored at once, the defaulters fined and the money put in the Ghatkuraba's village development fund.

Informal institutions have been used to solve conflicts both between and within villages, for example, through village elders. Both parties involved select their representatives (normally two or three for each party) and the decision taken by this group is binding. A mutually accepted group of village elders are often entrusted with the responsibility of arbitration in a situation where the committee is significantly weakened. In conflicts between villages too, the village elders sit together and seek resolution. Till date these arbitrations have been respected. The decisions have been unbiased on the whole and therefore this system has been working. But lately, defiance is mounting and the village elders have begun to distance themselves.

The government machinery here favours local resolution of the conflict and facilitates the process. Only when informal efforts fail, do they resort to formal institutions such as the police, courts or other state machinery. The formal institutions like panchayats and state government representatives such as block development officers have a potentially positive role to play, especially when informal arrangements are seen to be weakening and there is a felt need for formal institutions to step in. The strengthening of local institutions and elected representatives of the panchayats or the state legislature can deter free riding tendencies and establish a structure of equitable contributions and benefits.

The impact of these conflicts can be summarised as:

(a) Decline of the resource in the absence of proper upkeep of canals and dams,

resulting in leakages and less water for irrigation.

(b) Falling contributions and growing tendency to free load.

(c) Flash floods because of defunct dam gates in the year 2000. There was a loss of Rs 5,00,000 worth of paddy crop.

(d) Fragmentation and weakening of traditional institutions like committee of village elders and arbitrators.

(e) Growing levels of defiance resulting in withdrawal of the village elders and bitterness and acrimony between villages.

Better Institutions

The situation here has not reached a point where conflicts have become irresolvable. A two-pronged approach needs to be followed. First, the people must strive to increase the resource base, and second, they must strengthen institutions. The first can be achieved by completing the one-km stretch of canal to join the Barkop dam and Sundar dam; controlling seepage loss, unlined canal and repairing the dam gates. Institutional strengthening, the second, can be accomplished by implementing a strict central regime. The subcommittee should be dissolved and a new committee formed which should plan and utilise the resources efficiently. The involvement of panchayat or state representatives can give the new committee legal standing while participation of members from all social groups will give it acceptability. It is important to co-opt formal and informal institutions within the available legal space. Pressure needs to be mounted against free loaders and the committee must establish and justify regular contribution for upkeep and maintenance.

A tiered contribution structure can be planned, based on the "beneficiary pays" principle. Graded pricing mechanisms can also be followed with the downstream compensating the upstream. Charging high usage rates in the lean years should discourage monopolising of irrigation water by the head-reachers for a second crop. In the case of inter-village conflicts based on upstream-downstream divisions, the people should explore tradable water rights. The disincentive or penalty should be graduated, and based on the frequency and intensity of damage. [\[27\]](#)

Email: pankaj@winrockindia.org
ksingh@tarahaat.com

Notes

- 1 The genesis of the Barkop dam can be traced to the efforts of Rameshwar Thakur (presently governor of Orissa), who was behind many watershed projects in the district. He along with an NGO Gadadhar Mishra Smarak Khadi Gramodyog built this dam in Barkop village in 1971 with an aid of Rs 3,00,000.
- 2 *Chronology of events leading to conflicts:*
 1971a Barkop village dam built and monitoring committee formed.
 1971b a watchman employed and user charges on irrigation water levied.
 1971-81 active participation of all committee members.
 1981-91 Deendayal Roy and Kapildeo Prasad look after work.
 1991a the watchman quits, no replacement resulting in frequent flash floods.
 1991b village subcommittee of youths formed.
 1991 onwards increased incidences of intra- and inter-village conflicts.
 2000 flash floods, sand fill 50 acres of land.
 2001-03 around 30 intra-village conflicts in Ghatkuraba village per year.
 2003 conflict between Ghatkuraba and Siyaardih villages resulting in three injuries.
 2004 good monsoons. No intra- or inter-village conflicts.

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