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Status of Irrigation Management Transfer in India

Water Users' Association in Bhestan Minor (Mohini), Ukai Kakrapar Project: Farmers' Experience

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Water Users' Association in Bhestan Minor (Mohini), Ukai Kakrapar Project: Farmers' Experience

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Foreword

This booklet is one of the series of short narratives about farmers' efforts to create and manage water user associations. The purpose of the series is to provide other farmers in the state with succinct, readable, and interesting information about these efforts that might enable farmers to improve their access to the irrigation services. This study is being published in both Gujarati and English. See the back cover for information about the other narratives in this series.

This narrative was written by Jayeshkumar S. Patel under the guidance of IIMA and IIMI team members. He lived with the farmers described here from October, 1994 to April, 1995. While there, he interviewed and observed the farmers in order to document the water user association and irrigation management transfer process at this site. The information presented here reflects the ideas and opinions of the farmers themselves.

Jayeshkumar S. Patel's effort was part of the study on Status of Irrigation management Transfer in India being carried out from 1993 to 1995 by the Indian Institute of Management, Ahmedabad, and the International Irrigation Management Institute, Colombo, with funding from the Ford Foundation. The study investigated and documented the policies and activities of agencies, non-governmental organizations, and others with regard to promoting irrigation management transfer from the government to farmers. The overall goal was to contribute to formulation of effective policies and programs with regard to irrigation management transfer in India. In addition to this series of short narratives, study results are reported in more traditional research reports and other forms.

The primary members of the IIMA/IIMI study team were Shashi Kolavalli, Amarlal Kalro, Gopal Naik, and S. Ramnarayan from IIMA, and Jeffrey D. Brewer, R. Sakthivadivel, and K.V. Raju from IIMI. Editing in Gujarati was carried out by Barin Mehta. The edited first draft was translated into English and reviewed by the study team, particularly by K.V. Raju and Shashi Kolavalli.

The members of the study team, including Jayeshkumar S. Patel, wish to thank the people of Village Mohini, concerned government and non-governmental agencies who gave their hospitality and time to answer questions and explain how things work without expecting compensation. We sincerely hope that their experiences will be useful to others.

Jeffrey D. Brewer
IIMI

Gopal Naik
IIMA

Water Users' Association in Bhestan Minor (Mohini), Ukai Kakrapar Project : Farmers' Experience

Introduction

Mohini village is situated in Choryasi taluka of Surat district. It is surrounded by Khambhasala, Gangwa, Goja, Kharbhasi and Deladwa villages. Mohini is a big village. One cannot imagine what was the condition of these villages 20-25 years ago. Irrigation water from the Ukai dam constructed in 1971 has transformed this what was once a dry region to a rich and prosperous area. At present, the area between the Tapi and Vapi rivers is better known as "Kashi of Gujarat".

Rainfall in the area is uncertain and irregular. The land is plain with scattered trees and no greenery. Soils have good moisture retaining capacity. Owing to irregular rainfall, farm production before the Ukai dam was low. Farmers were cultivating the land only in the kharif season and that too for home consumption. Land is suitable for cultivating sugarcane, banana and some other crops but there was not enough water to grow them. If the rainfall was low or not enough, farmers migrated to Surat in search of employment in diamond polishing units.

Big farmers were a few the rest were small and marginal farmers. There were also landless labourers. Land was fertile but production was low because of lack of water. Big farmers had wells and they could cultivate their land. But in summer all wells went dry and even big farmers could do nothing. Small and marginal farmers were poor. Owing to timidity, they could not request water from the big farmers for irrigation. Small and medium farmers therefore, cultivated crops like tur, jowar, and, if possible, cotton. Land remained idle for eight months. Youths of the village migrated to Surat and worked in the diamond industry. They earned more and preferred to stay there itself. Gradually they lost interest in farming.

The Patels were the main caste group in this area. Other castes included the Halpatis, Dublas, Muslims, Harijans and some Rathods. Mostly they

live in joint families. In poor and backward communities, drinking and non-vegetarian diet are common. Houses and huts were made of mud and lime. Dress was simple and consisted of dhoti, kafni, and a cap on the head. Literacy was low.

Irrigation Facility and Grievances of Farmers

During 1971-72 the Ukai-Kakrapar dam was constructed on the Tapi river. Through a canal network, water was supplied for irrigation. Mohini and its surrounding villages of Khambhasala, Gangwa, Goja, Kharbhasi and Deladwa were in the command area of this dam. Even though there was enough water, their fields could not get irrigation water. In the total area of 1265 acres only about 300 to 400 acres were supplied with water. A defect in the distribution system was the reason for this poor supply. Some farmers compounded the problem by placing obstacles in the sub minor canal and denying water to farmers in the middle and tail reaches. While the head reach farmers were able to raise sugarcane, others did not get water or got very little water. Quarrels between the head reach farmers and others took place quite frequently.

The irrigation department pleaded helplessness because it was not responsible for internal water distribution. It could only request the farmers to adopt such a system through which water could be distributed equitably. This, however, required an understanding among the farmers.

Establishment of a Cooperative Society

It was at this juncture that Bhikhubhai and his colleagues came forward and suggested to the farmers that a cooperative society for distributing water was the only solution. They were able to convince a majority of the farmers and initiated steps for establishing a cooperative society in 1977-78. It was Bhikhubhai who suggested for first time to the irrigation department about establishing a cooperative society. The irrigation department gave its approval with certain conditions:

1) If the society incurred losses, during the first three years of its operation, the irrigation department will reimburse the losses in full.

2) During the first two years, the irrigation department will give Rs.26,000 per year as grant.

3) The irrigation department will charge 0.30 paisa per 10,000 litres for water supplied to the society while the society will levy water charges cropwise and areawise from the farmers.

4) The irrigation department will repair the sub-minor canal and other structures.

The farmers had no difficulty in accepting these conditions. They paid Rs.50 towards share capital and Rs.1 as entrance fee. In September 1978, the Mohini Irrigation Cooperative Society was registered under the 1861 Gujarat Cooperative Societies Act. In March 1979, the society was formally inaugurated by the then Irrigation Minister Mr. Keshubhai Patel.

Structure of the Society

Mr. Bhikubhai Patel was selected unanimously as President of the society. To assist him, there was a working committee of six members. A manager, two clerks one mistry, and three watchmen were appointed on daily wages to look after the distribution of water and collection of water charges. Thus a formal structure of the society came into being.

It was decided to hold a general body meeting every year, and working committee meetings every month. It was also decided that under the guidance of the president, members of the committees and employees will look after the management of the society.

Objectives of the Society

The main aim of the society was to buy water from the irrigation department and distribute it proportionately to the members. The society

decided right from the beginning that only members will be given water. It also decided that farmers of Mohini, Khabhasala, Goja, Gangwa, Kharbhasi and Deladwa who are under the command area of this society could become members of the society. During 1978-79 only 143 farmers became members of a society contributing a share capital of Rs.7900. Gradually the membership and the command area of the society increased.

In 1979-80, the irrigation department repaired almost all the canals which were under the command area of the society. Wherever necessary, subminor canals were also made permanent. So that proper control could be maintained over water distribution. The irrigation department increased the number of outlets in the subminor wherever necessary. The Area Development Commissioner suggested that repairing and maintenance of the subminor canal and structures will be the responsibility of the irrigation department.

The society took over the following functions from the irrigation department: distributing water among farmer members, recovering water charges according to the area irrigated and keeping track of volume of water used.

Planning of Water

There are four subminor canals in the command area of the society. The society gets water in these four sub-minor canals (3L, 4L, 5L and 1R) through a minor canal. Water used during a rotation is measured by the standard wave flume which is kept at the headreach of the sub minor canal. Near the flume is a gauge chamber where the gauge scale is kept. A reading of the water level in the subminor canal as shown by the gauge scale is noted by the watchman. The society pays 25 paise per 10,000 litres of water to the irrigation department. In addition, it pays 5 paise per 10,000 litres of water as local fund.

Generally, water is supplied in rotation. Below is shown a rotation schedule:

Season	Time	No. of rotations
Summer	15 Feb to 14 June	4 to 6
Kharif	15 June to 14 Nov	3 to 4
Rabi	15 Nov to 14 Feb	3 to 4

Procedure for Obtaining Water

Every member of the society has to fill up a form in duplicate quadruplicate in which he indicates the crop area and crops grown before the season begins. The clerk records the details in a register. According to the measured area and type of crop grown, water charge per acre is levied. The farmer who takes water only once in a season has to pay only 50 per cent of the full season charges. But the farmer who takes water more than once, has to pay the full season charge. Farmers who pay water charges late are charged a penalty at 15 per cent of the water charge. If one pays his dues in the same season, he is given 10 per cent discount.

Distribution of Water and Grievances

The distribution of canal water is done with the cooperation of the farmers. The head reach and tail reach farmers of the sub-minor canal get water, regularly and uniformly during each rotation. Farmers who take water without prior permission of the society and do not follow rotation are levied a penalty of Rs.50 by the watchman. Where a farmer interferes in the neighbour farmer's water supply or draws more water than sanctioned, a panchnama is prepared against the erring farmer. When the problems are more serious, a meeting of the working committee is held in which workable solutions are discussed.

The watchman forces the farmers to follow the rules strictly. He never accepts any bribe. He regulates the outlets in such a way that there would not be any wastage of water. This has helped in reducing water wastage and indirectly helped the society increase its profits. During a rotation, the committee members take several readings of the level gauge at the head reach. This reading is also checked by the watchman and a patkari of the

irrigation department. The committee members frequently instruct the farmers to keep their field channels clean.

Leadership

Bhikhubhai served the society for 10 years as president. Thanks to efficient management, the society made a profit of Rs. 16771 in its first year itself. The irrigation department felt that the first three years would be difficult for the society. But Bhikhubhai proved that, through minimum use of water and proper distribution, the society could be run efficiently. Bhikubhai was a strict man and believed in discipline. He trained the manager, clerks, and watchmen for performing their duties. He wanted that all employees of the society should be alert. He sought daily reports of areas irrigated and quantity of water supplied.

For Bihkubhai members interests were of prime concern. If the irrigation department did not have enough funds for repairing and maintaining the subminor canal or its structures or the government did not allocate enough funds, Bhikhubhai would ask the irrigation department to give to the society the repairs and maintenance grant according to the command area of the society. It then became the society's responsibility how and where to use it. If funds were short for maintenance, the society used its own funds, and if funds were in excess, the society used it for other works.

When there was continuous scarcity of water or drought for three years from 1983 to 1986, the irrigation department informed the society that water would be given to only standing crops and not to the new crop of sugarcane. Bhikhubhai told the irrigation department to supply the contracted volume of water and assured the irrigation department that it was the responsibility of the society to make the best use of it. Thanks to efficient management, the society not only gave water to the standing crops but also to new crop of sugarcane, besides saving some volume of water. This was an eyeopener for the irrigation department personnel.

Bhikhubhai was keenly interested in all the activities of the society. In 1989-90, he retired from the presidentship on the ground of ill health. It

was a sad and painful occasion for the village people, employees of the society, and staff of the irrigation department.

Benefits to Villagers

The villagers have benefited considerably after the formation of the society:

1) Owing to proper rotation and regular distribution of water, there is no wastage of water and more area is irrigated.

2) Tail reach farmers are getting water regularly and in enough quantity in each rotation.

3) Farmers are assured of regular supply of water so they have put more area under irrigation. Area under perennial cash crops like sugarcane and banana has increased.

4) Stealing of irrigation water and quarrels among farmers have stopped.

5) Percentage of recovery seems to be very high.

6) Under the supervision of the society, farmers have compulsorily cleaned their field channels resulting in increased flow of water.

7) With the help of local administration, speedy and satisfactory solutions to problems of the farmers have been found.

8) Procedures such as filling up the water application form, sanctioning water, filling up demand letter, recovering water charges, etc. have become easy. As a result, the irrigation department requires less number of staff.

9) Farmers have reported higher incomes from sugarcane.

Other Activities of the Society

Before growing crops like sugarcane and banana, land requires to be prepared. Land is to be prepared again after harvesting these crops. All these activities required a tractor which the farmers hired after paying a hefty sum. But often, farmers could not get it on time and, therefore could not grow sugarcane. Looking to the difficulties faced by the farmers, the society purchased a 55 H.P. tractor in 1980 along with implements like plough, cultivator, ridger, harrow, and trailer. Both members and non members could hire these implements. Non members had to pay 10 per cent more than members. Small and marginal farmers could hire them at 50 per cent concessional rate.

The farmers had to give a demand letter to the society for hiring the tractor. Nobody could hire the tractor without putting a demand. Owing to disciplined use, the society recovered the cost of the tractor during the first three years.

Present Position

After Bhikhubhai retired, the fortunes of the society took a downward slide. The new president did not exercise any control like Bhikubhai did. The committee members also did not show much interest in the working of the society. They gave first preference to themselves in hiring the tractor or distributing irrigation water.

The watchmen have quit the society as they were receiving low salaries. At present there is no driver for the tractor and there is no income to the society from tractor hiring. The manager and the clerks too are thinking of quitting as they are getting low salaries.

In every rotation nowadays, there are quarrels. On each subminor canal, some farmers divert the water to their fields. Field channels have not been cleaned, so it takes more time to irrigate the fields. During this time the farmers of the middle and tailreaches become restless and break the bund

of the headreach farmers. They do take water according to their rotation. There is also a lot of wastage.

Majority of the farmers do not like to take water at night. The watchmen keep the outlets open even when the farmers are not making use of water. Stealing of water is openly done. The watchmen are neither taking any steps nor penalizing the farmers. They also do not give water to farmers according to their rotation. Gauge reading is done hardly once in two days; even this is done haphazardly.

The irrigation department and the society had decided that the society could take water for a maximum of six days during its rotation period by closing the C.R. gate and a bund of the Bhestan minor canal. Later on the society could take water without closing the bund. Nowadays, this procedure is not followed. Farmers themselves close the C.R. gates and get water for 8 to 10 days. The irrigation department is not able to give enough water to the tail reach farmers. Farmers take so much water (10 to 12 inches) that their fields are waterlogged. Salinity in soil is increasing and even well water is unfit for farming because it is very salty.

Farmers are also not following crop rotation. They take sugarcane permanently because of which sugarcane production has been continuously declining. Proximity to a sugar factory and problems in growing other crops are other reasons for the exclusive cultivation of sugarcane.

According to the farmers, the irrigation department has not repaired the sub-minor canals. The society is forced to run the subminor canals with full water gauge flow. As a result, water consumption is more than required and water is wasted.

In addition, the irrigation department has not made the 5L subminor canal permanent and corrected the canal slope. Because of these defects water is not flowing with full velocity towards the tail reach. As a result farmers in the tail area face difficulty. Many times, they use field drain water which is not fit for irrigation.

In the head reach of the subminor canal (where a flume is kept for measuring water) and the minor canal, there is a deposition of silt nearly 1/2 foot. Because of this deposition, the gauge records show a higher level of water in the canal. As a result farmers in this area are receiving a higher bill than what it should be from the irrigation department.

The position of the Bhestan minor is worse. At many places there are big holes. Owing to the deposition of silt, water flow is just half of its designed capacity. Not only this, the level of the canal is not even. The irrigation department finds it difficult to provide irrigation for nearly 3500 ha. and full flow of water in the Pandeshara GIDC area. The irrigation department personnel say that they are not getting enough funds and staff and hence repairs can not be carried out. According to them, the canals are very old and not permanent. Secondly the canal is passing through black soil area and weeds (horse grass) grow very fast inside the canal. Roaming cattle also break the canal frequently. Because of crabs, holes are forming in the canal. If the canal lining is made permanent, many of these problems could be solved.

In addition, the farmers are complaining of laxity in the society's administration. The committee members make rules which are not strictly observed (by the members).

* In March 1994, the society decided that farmers who are taking water as much as that for sugarcane but instead cultivate sapota and mango should pay according to the sugarcane rate. But they are not following this rule.

* In September, 1994, the society decided that farmers who have not paid water charges of the last four seasons will not get water. The rule is not followed.

* In December, 1994 the society decided that farmers who did not clean their field channels would not get water. But the President himself has not cleaned his field channel and got water. Other farmers also followed suit.

Farmers in the head reach of the subminor canal get water twice in a rotation. Farmers are not getting the services of the tractor according to their turn. Some committee members are getting the services of the tractor without getting their demand registered.

According to the society, government has fixed a uniform rate for water at 30 paisa per 10,000 litres.

The society has fixed the rate according to crop and area as under:

Season	Paddy	Sugarcane
Kharif	Rs.110 per hectare	Rs.170 per hectare
Rabi		Rs.290 per hectare
Summer	Rs.250 per hectare	Rs.370 per hectare

Farmers take water for sugarcane but pay according to the rate for paddy. But the rates for the two crops are different. As a result the society receives less income from supplying water for the paddy crop. The society feels that the government should charge according to season and crop.

The government is collecting 5 paise per 10,000 litres of water for local fund from the society. The society has suggested that this fund should be used to repair service road in the area. The service road which is near the 1R subminor canal and passing over the minor canal is in very bad condition. The society has been representing every year to the irrigation department to repair this road without much success.

Financial Position

The society owes to the irrigation department Rs 3,25,055/- as water charges of the last six seasons. According to the talati of the irrigation department, the society is not paying water charges regularly. On this ground, the mamlatdar put the society under liquidation.

In addition, the society has to recover Rs. 107,535 as water charges from 1988 and Rs 81345 as tractor hiring charges from 1985. Owing to misuse and wastage, the water bill is very high. Even if the bill amount is recovered from the farmers, the society incurs losses. If the Watchmen record the actual gauge reading, the bill amount and loss to the society would be even higher. So the watchmen falsify the figures. Interestingly, the irrigation department is this practice. Because of this attitude of the irrigation department, mismanagement of the society is not exposed.

According to some farmers, the irrigation department staff have been deprived of many benefits after the formation of the society. Earlier, the farmers applied to the irrigation department for water. The staff recorded less area in their demand register and pocketed the extra money. Both farmers and irrigation department staff benefitted from this corrupt practice. But after the establishment of the society, this give and take was not possible.

Future Plans

The society plans to undertake the following works:

1. Around each field, a field drain is to be prepared so that there would not be any fear of soil becoming saline and useless.

2. Purchase a new tractor for hiring out.

3. Renovate all subminor canals, and to make them permanent; repair bad and temporary service roads and make them permanent; insist that the irrigation department take necessary steps against staff malpractices, and if possible, to represent the matter at higher levels.

List of case studies published in local languages under Irrigation Management Transfer Project

Case Studies conducted in Gujarat and published in Gujarati

1. Water Users' Association in Anklav Subminor, Mahi Kadana Project: Farmers' Experience
2. Water Users' Association in Right Bank Canal of Pingot Medium Irrigation Project: Farmers' Experience
3. Water Users' Association in Left Bank Canal of Baldeva Medium Irrigation Project: Farmers' Experience
4. Water Users' Association in Bhestan Minor (Mohini), Ukai Kakrapar Project: Farmers' Experience
5. Water Users' Association in Bhima Lift Irrigation Scheme: Farmers' Experience

Case Studies conducted in Maharashtra and published in Marathi

1. Water Users' Association in Phulewadi Lift Irrigation Scheme: Farmers' Experience
2. Water Users' Association in Kadoli Lift Irrigation Scheme: Farmers' Experience
3. Water Users' Association in Minor 7, Mula Project: Farmers' Experience
4. Water Users' Association in Parunde Minor Irrigation Project: Farmers' Experience
5. Water Users' Association in Hadshi Minor Irrigation Project: Farmers' Experience
6. Water Users' Association in Minor 17, 18, 18A, 19 and Distributary 1, Waghad Project: Farmers' Experience
7. Water Users' Association in Minor 10, Bhima Project: Farmers' Experience

Case Studies conducted in Tamil Nadu and published in Tamil

1. Water Users' Association in XIth Branch Canal, Periyar Vaigai Project: Farmers' Experience

2. Water Users' Association in Kedar Tank: Farmers' Experience
3. Water Users' Association in Dusi Mamandur Tank: Farmers' Experience
4. Water Users' Association in 28L and 29R Outlets of Mettupalayam distributary in Lower Bhavani Project: Farmers' Experience
5. Water Users' Association in Malayadipalayam Distributary of Parambikulam Aliyar Project: Farmers' Experience
6. Water Users' Association in A9 Mahilanchery Channel (Saliperi), Cauvery-Valappar Project: Farmers' Experience
7. Water Users' Association in Panchanthangipatti Tank: Farmers' Experience
8. Water Users' Association in Pillayarkulam Tank: Farmers' Experience
9. Water Users' Association in Vagaikulam Tank, North Kodaimelalagian Channel, Tambraparani Project: Farmers' Experience

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