

Status of Irrigation Management Transfer in India

**Water Users' Association in 28L
and 29R Outlets of Mettupalayam
Distributary in Lower Bhavani
Project: Farmers' Experience**

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**International Irrigation Management
Institute, Colombo
December, 1995**

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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 Tamil and English. See the back cover for information about the other narratives in this series.

This narrative was written by R. Sureshvaran 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.

R. Sureshvaran'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 Tamil was carried out by S. Subramanian and Dinakaran. The edited first draft was translated into English and reviewed by the study team, particularly by K.V. Raju and R. Sakthivadivel.

The members of the study team, including R. Sureshvaran, wish to thank the people of Village Salangapalayam and Gounderpalayam, 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 28L and 29R Outlets of Mettupalayam Distributary in Lower Bhavani Project: Farmers' Experience

Introduction

When resources are scarce, they should be managed and used with care. If farmers are involved in water management, water distribution will be better. With this in mind, 23 farmers' councils have been formed since 1987 in the Lower Bhavani project.

Problems Faced by Farmers

The Lower Bhavani system was built between 1948 and 1953 and became operational in 1953. By 1956, about 80970 ha benefitted from the irrigation system. The main canal is around 124 km long. As the canals are all sand bund canals, there was water loss due to leakage. The water retention capacity of the soil is low and, therefore, more water is required for irrigation. This has resulted in the tail end areas of the canal getting hardly any water. In addition to this, farmers are increasingly drawing unauthorized water through hose pipes. As the farmers do not follow a proper water distribution system, there is a lot of misunderstandings among them.

Lower Bhavani Project

This project includes the Lower Bhavani catchment areas and the tributaries. The catchment area is in the Nilgiri hills. Water is stored in the Bhavani Sagar dam and irrigates six taluks in the Periyar district and the Kodumudi area in Tiruchi district. It joins the Cauvery river near Bhavani town.

Water Source

The main water source is the monsoon. The average rainfall in the catchment area is 1200-1500mm, and, in the irrigation area, 600-650mm.

Distribution

Because of water loss due to leakages in canals and increase in the area under irrigation, the three zonal irrigation plan was introduced by the Public Works Department (PWD) in 1959. The sluices were divided into two groups – even numbered and odd numbered. Water was first distributed to the even-numbered sluices and later to the odd-numbered sluices. It had been decided by PWD to plant wet crops in the area under the even-numbered sluices and dry crops in the area under the odd-numbered sluices when water is not delivered and vice versa. This restriction was scrapped by the then collector in 1981. The first turn starts in August and ends in December in which 24 TMC water is released. In the second turn, which begins in January and ends in April, 12 TMC water is released.

Farmers' Role in Irrigation Management

In Tamil Nadu, all irrigation-related activities are carried out by PWD. All decisions are taken by PWD, which usually is influenced by politicians. The farmers have never been consulted by PWD in water distribution.

Crop Pattern

Since the soil is poor and terrain uneven more water is required for irrigation. Crops preferred by the farmers are rice, groundnut, sugarcane and turmeric. Sugarcane and turmeric are grown by farmers having wells. The produce is sold through merchants and regulated markets.

Social and Economic Structure

The farmers reside in two hamlets, Salangapalayam and Gounderpalayam. Both hamlets are around 13 km away from Bhavani taluka in Periyar district. The villages comprise mostly the Vetuva Gounders and the Mudaliyars. There is a scattering of the Kongu Velalars, Padayachi Gounders, and Sakkliars. More than 90 per cent of the land is owned by

the Vetuva Gounders. Each owns on an average 0.60 ha to 1 ha. Their main occupation is agriculture. The Mudaliyars are involved in weaving. The Sakkliars are mostly farm labourers.

As no elections have been held for over four years to the village panchayat, village agriculture association, and milk producers' association, these bodies are under the control of the government. Though the farmers belong to various political parties, they kept out politics from the sluice associations. As the sluice associations have no proper work cut out for them, they hardly function.

Growth of Farmers' Bodies

A farmers' association, led by Mr. Narayanaswami was quite strong in the Lower Bhavani area, concentrated in procuring loans for farmers, providing fertilizers and pesticides at concessional rates, and getting better price for their produce. Later, this body transformed itself into a political party. After Narayanaswamy's death, the association lost its clout. These activities are now being carried out by the Lower Bhavani Farmers' Association. In the 60s and 70s, the farmers got rotational water supply cards to ensure proper and even distribution of water.

Entry of Agricultural Engineering Department

In 1982 a agricultural engineering department wing was set up in the area under a superintendent engineer, an executive engineer, and five assistant executive engineers. They concentrated on repairing canals, constructing roads for vehicles, and similar activities. The executive engineer prepared water distribution time tables in consultation with the farmers. The officials had a tough time removing encroachments in the canal area and getting farmers' support while constructing the canal.

At this point of time, the superintending engineer, Mr Arumai Singh went to the Philippines on official tour. On his return, he set up farmers' bodies in the lines of those existing in the Philippines. He started setting up farmers' bodies with the help of Irrigation Community Organizers, in the

Thindal distributary area. He came into contact with the farmers and urged them to unite and set up farmers' bodies. He assured them that the farmers' association could enter into a contract to build the canal and that the department would provide technical assistance.

According to Singh's plan, 13 ICOs kept close contact with the farmers and convinced them about the benefits of the Command Area Development Plan (CADP). When a couple of associations were formed, ICOs helped them in electing its office bearers.

Later, branch committees were set up on the basis of one committee for 304 to 405 ha. The sluice association presidents were nominated to the general council of the committees. If a sluice had above 20 ha, one person would be nominated to the committee. The president, vice-president, secretary, treasurer, and joint secretary would be elected by the committee members with the help of ICOs.

One person for every 100 acres would be nominated from the branch committees to the farmers' council. ICOs would then convene the council meeting and elect a 10-member governing body. The president and the secretary would be elected from among the governing body members. The farmers gave full co-operation to this effort as they were assured that they will be involved in the construction of the canal. The first farmers' council was set up in April 1988.

After the successful setting up of the first farmers' council, efforts were made to set up similar bodies all over the Lower Bhavani area with the help of an increased number of ICOs. The target was 38 farmers' councils one farmers' council for every 1215 to 1619 ha.

Functioning of Farmers' Bodies

ICOs helped set up a farmers council (U 10) in the Mettupalayam distributary in 1989. Earlier, the farmers in the 28L and 29R sluices had prepared a 5-1/2 day water distribution time table to solve their water problems. The time table gave each farmer water according to the land

area. The farmers found that the 5-1/2 day time table did not solve their problems.

The farmers then implemented a 3-1/2 day plan which ironed out the drawbacks of the 5-1/2 day plan. In the 5-1/2 day plan the farmers discovered that they could not get water regularly and the timings had to be changed often. Moreover, the farmers were perennially saddled with morning or evening turns. The 3-1/2 day plan solved these problems.

According to this new plan, water was distributed in two phases : From 6 am on Sunday to 6 pm on Wednesday and from 6 pm on Wednesday to 6 am on Sunday. Each farmer got his turn twice every week. If the first turn had come in the morning, the next would be in the evening. If a farmer failed to utilize his turn there was no way to get it again. This made the farmers careful in utilizing their turns.

In 1989, ICOs approached the farmers under the 28 L sluice and urged them to set up a council. After the association was formed, a meeting of the farmers and ICOs signed an agreement on the construction of the canal. In the next meeting office bearers of the association were elected.

Activities of Sluice Associations

Even before they could get funds from the Agricultural Engineering Department, farmers under the 28 L sluice contributed from Rs 100 to Rs 200 and started canal construction. When they got Rs 1,47,000 from the government, the association returned the farmers contribution. A 1629 meter long canal covering about 51 of the 63 ha was built. The Agricultural Engineering Department assisted the farmers in planning, supervision, and technical aspects.

The sluice association, along with other farmers, took pains to have a percolation pond constructed in government land near the sluice. After a lot of effort, the Agricultural Engineering Department constructed a percolation pond in 1993. This has improved the water position in more than 50 wells. Of them eight wells are situated in the 28L sluice area.

The 29R sluice association, on the contrary, remains only on paper. The construction of the canal in their area was, in fact done by a private contractor. While the 28L canal is functioning quite well, the other canal built by the private contractor has already started showing signs of damage. Apart from cleaning the canals before each season, the sluice associations have not done anything. The sluice associations have not been registered. There are no rules or regulations. No meetings have taken place after the construction of the canal.

Branch Committees and U10 Farmers' Council

After some 78 such sluice associations were formed, six branch committees, each covering an area of 405 ha, were formed. A 60 member council was formed with members drawn from the branch committees. The U10 farmers' council was formed in 1989 and formally inaugurated in March 1992. Apart from sending representations to the council, the branch committees have performed no other function.

Activities of U10 Farmers' Council

Some five council meetings and more than ten managing committee meetings have been held so far since the formation of the council, mostly for seeking more water and free electricity. Of the Rs.2,40,000 received from the government as management subsidy in April 1994, Rs.1,40,000 has been deposited in a recurring deposit and Rs 1 lakh in a fixed deposit. The four canals have been repaired at a cost of Rs 22,000. Around 746 ha have benefitted from the repair works. The farmers say water availability has increased by 15 to 20 per cent after the repair were done.

A power tiller provided by the Agricultural Engineering Department is being rented out to farmers at Rs.50 less than the rate charged by private operators. Some 13 ha have been tilled till 1994 and the hiring out has provided an income of Rs 2,000 to the council.

Maintaining the Register

The farmers' councils are supposed to maintain a rules and regulations book, a members' register and account book. But these are being maintained by ICOs.

Activities

After around 8 such farmers' councils were set up, a meeting of the councils' representatives and some farmers was held by the chief engineer in the end of 1990. In this meeting the idea to set up a federation of farmers' councils was mooted. Other proposals were:

1. As it will be impossible for the associations to function till the responsibility sharing is decided, the government grant should be deposited in a bank and only the interest should be used.
2. PWD and the government must advise the farmers regarding the capacity of the dam, water release, and distribution.
3. The ayacut register must be renewed.
4. All tributaries and branch canals must be repaired.
5. The bodies must be given responsibilities in irrigation management.

The farmers felt that unless these were taken care of, the federation could not function properly. The authorities discussed these proposals with the agriculture minister, who assured them that he would look into them.

A farmers' conference was held that year in which the agriculture minister, government officials and farmers' representatives from other states participated. A federation headed by the M1 farmers' council chief, Mr K.P. Muthuswami, was set up. Till now, representatives from 20 farmers' councils have been included in the federation.

Another conference was held in 1991. The Agriculture Minister again assured the farmers that he was looking into their proposals. But the fall of the government put an end to the farmers' hopes. After Mr Muthuswamy's death, a 22- member managing committee was formed in a meeting held in October 1993.

Activities and Results

The federation has held more than 10 meetings so far.

1. The federation requested the agricultural engineering department to increase the grant. As a result of this request, the grant was raised from Rs 2,000 per hectare to Rs 4,000.
2. Water could not be released the second time in 1994 owing to scarcity of water. The federation requested the government to release water for the gingelly crop. As this request was backed by the political parties and farmers' organizations, the government released water for the gingelly crop.
3. Though initially farmers were involved in the construction of canals, after 1992, involving farmers has become rare as several rackets were unearthed in the scheme. Farmers say the official who was in charge of the Lower Bhavani Project quit after some disagreements with some officials.
4. The federation had requested that a joint meeting of PWD, revenue department, Agricultural Engineering Department officials and the farmers must be held before water is released from the dam. This proposal has gone unheeded.
5. Farmers requested the collector to renew the ayacut register. He asked PWD to look into it. PWD, however, has so far not bothered to do anything.

6. The farmers allege that around 10 per cent of the agricultural area has been encroached upon by weaving units and suburban areas of Bhavani town.
7. The Federation has concentrated mainly on development of irrigation and trying to get more water for irrigation. It has not done anything about storage and sale of the produce or providing fertilizers and pesticides.
8. The Federation has represented several times to the government regarding the discharge of effluent in the catchment area by the Sirumugai Viscose plant.

Finance

The rules say that each farmers' council has to contribute Rs 1,000 per year to the federation. If the federation needs more money, it can collect the amount from farmers. But so far, none of the councils has given the initial contribution. As the office bearers of the federation are big farmers and well off, day-to-day expenses of the federation taken care of by them. Moreover, as only 23 councils out of the required 38 have been set up, not all areas are represented in the federation.

PWD'S Approach

Though the main reason for setting up farmers' councils was to decentralize irrigation operations, the councils have not been given any major responsibility. PWD has not taken any steps to enter into any agreements with the farmers' councils on sharing of responsibilities. Maintenance of the canals and distribution of water are being done by the farmers themselves. The setting up of the farmers' councils based on the Philippines model has been done just to achieve targets. This has affected the functioning of the councils.

Once a council is set up, ICOs are sent to other areas to set up similar councils. The authorities say their responsibility ends with the setting up

of councils. The farmers say that as the bodies have no responsibilities, they are of no use. This is why most councils have not done anything other than depositing the government grant in banks.

The agricultural engineering department has not bothered to monitor the functioning of the councils. As ICOs function on daily wages, insecurity does not allow them to involve themselves in their work. ICOs who have dared to ask for making their jobs permanent have been sacked. Though 23 councils have been set up in the area, rules and regulations have not been formed so far.

Legal Hitches

There has been no proper policy in Tamil Nadu to involve the farmers in irrigation management. Though the councils are set up by the Agricultural Engineering Department, they are administered by PWD. There has been no agreement on division of responsibilities between the farmers and the PWD.

Expenses of Agricultural Engineering Department

The Agricultural Engineering Department has spent around Rs. 14.15 crore in constructing canals in 22672 ha from 1982 to 1994 and another Rs 56 lakh in preparing water distribution time tables. Of the 23 farmers' councils set up till 1994, 19 have received the first instalment of the government grants and a council two installments. The total grants disbursed is Rs 32 lakh.

Activities of PWD in Water Management

Some 84000 ha get irrigated through the main canal in the Lower Bhavani area and around 16194 ha through the old ayacut. The farmers using the old ayacut had entered into an agreement with the authorities before the Lower Bhavani project was implemented that they should receive water for 10 1/2 months continuously for the nanjai crop.

The dam and the old ayacut areas are looked after by an executive engineer and four assistant executive engineers. The Lower Bhavani irrigation system is managed by an executive engineer, four assistant executive engineers, and 16 assistant engineers. PWD repairs the canals and other irrigation systems from May to August.

Before water is released, the executive engineer sends a report on the water level and the intended amount of release to the chief engineer. The agriculture department decides the day of water release and amount. The farmers are rarely consulted. Normally, water is released around August 15. But in 1994, water was released on August 1 itself as there was enough water. All these are decided at the dam level itself and the engineers decide on the water release only on the basis of water arrival in the dam.

Though water was released on August 1, 1994 it reached the Mettupalayam distributary at the 51st mile on August 4 and the 28R sluice on 6 August. The engineers do not bother to inform the farmers of the day of water release.

There has to be two supervisors and six laskars in the Chittode area office. But it has only one supervisor and a laskar. As the lone laskar is not keeping well he is unable to do any work. Three laskars have been appointed on daily wage basis but they do not have enough experience for the job. The assistant engineer and the supervisor advise the laskars what to do.

The Mettupalayam distributary needs 68 shutters, but has only 45. The shutters are operated only on the basis of the water availability and farmers' requests. The only water scale functional is at the head reach of the Mettupalayam distributary. PWD's duty ends with releasing the water to the sluices. They do not bother whether water is enough or whether it is being distributed properly.

There are instances of farmers taking water through hose pipes. The PWD has not been able to do anything effectively about this practice. Around

81 to 101 ha in the Mettupalayam distributary itself get water through this illegal practice.

Farmers' Councils and PWD

PWD was not informed when the councils were set up. Though it is aware that the agricultural engineering department is setting up such councils, it is not aware where the council are being set up or who have been elected.

Water Distribution

Fifty cusecs water has to be released from the distributary, but less than 45 cusecs has been released in more than 115 days of the total 131. The monsoon started around September-end this season (1994-95). The farmers suffered a lot because of water scarcity from August 20 to September 25. The farmers had approached the authorities seeking opening of the shutters on August 7 and September 4. Only on September 5 was the shutter raised by an inch. Planting of the crop was delayed by 10 to 15 days because of water scarcity. Farmers with wells helped others by offering water free of cost. In this season, of the 63 ha, rice has been planted in 37 ha, sugarcane in 11 ha, and turmeric in 2.5 ha.

Water was stopped during the second week of November because of the rains. There was around 475 mm rainfall this season. Of this 80 per cent fell between October 15 and November 15. In the 3 1/2 day system this season, the farmers were careful with water because the crop was rice. In this sluice the left side has been allotted 1 hour 15 minutes per acre and the right 55 minutes per acre. The farmers cooperated by adjusting turns.

For instance, a farmer who had his fields in different areas of the sluice was able to get water continuously from 9.10 am to 3.10 pm for a day. Farmers from outside the village have entrusted the irrigation job to one Mr Subramaniam, who receives a bag of rice (65 kg) per acre per season as his wage.

When the second release was done for the 28 R sluice, PWD and the collector released separate statements in the newspapers. Because water is drawn through hosepipes in more than 25 places in the night, water availability is reduced by half. Each time the water is released, 60 per cent of the area get water three times and 40 per cent twice. In this sluice (29R), of the total 15.38 ha, groundnut has been planted in 10 ha, sugarcane in 1.61 ha, and rice in 3.05 ha. Since groundnut needs less water, other farmers use the unused portion of water of groundnut farmers.

Groundwater Level

In 1970, there were only 15,000 wells in the Lower Bhavani area. Now, there are more than 33,000. Each well has an average depth of around 35 to 65 feet and irrigates on an average 0.61 to 0.81 ha. Those who have wells usually plant annual crops like sugarcane and turmeric. During scarcity periods, they plant crops like groundnut. Since the wells are not very deep, water level comes down drastically when water availability in the canals is reduced. Most of the farmers with wells use groundwater to supplement canal irrigation, and for irrigating yearly crops. Since not much water is available through the wells it is rare to find anyone selling groundwater. Water is sold only in times of scarcity at the rate of Rs 15 to 20 per hour.

There are 28 wells in 28L and five in 29R. Before 1970, there were only eight wells. During the Nanjai season, farmers in 29R planted sugarcane in 1.61 ha and rice in 3.03 ha. Groundwater was used for 5 to 6 hours every alternate day when water was available in the canal and for the same period every day when water was scarce in the canal.

Present Position

All the associations are Unregistered. Since they are dormant, farmers have almost forgotten their existence. Interestingly, several office bearers have also forgotten that they hold important posts.

The U10 Farmers' Council has been sending representations to the government till 1994 when it got the first instalment of the grant. It has repaired four distributaries with interest from the grant deposited in the bank and farmers' contributions. Though it was registered in June 1992, it has taken steps to renew the registration only in 1994. The federation is yet to be registered. Even this body has been content to represent to the government on problems faced by the farmers. Till 1994, 23 farmers' councils have been set up. One council has received two installments of the grants. Nineteen have received only one.

Some councils have repaired canals with interest from depositing the grant in the bank. But more than 15 councils have done nothing with the grant except to deposit it in the bank. In 1990, the Agricultural Engineering Department officials agreed to take the responsibility of depositing the grant and utilizing it. But as this was questioned by a government audit panel, the department returned the money to the councils and asked them to do the repairs themselves. The councils, however, have not been given any authority, so they have not utilized the grant.

The government has chalked out several plans at a total cost of Rs 1,140 crore under the WRCP with World Bank aid. The Lower Bhavani has been allotted Rs 35 crore. When World Bank officials visited the area, council representatives requested them to involve them in the plan. The World Bank has asked the government to involve the farmers in the plan. In 1994, a government order to this effect was issued. As there has been some delay in getting the World Bank aid, works are yet to start.

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 Ankla 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
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