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**Status of Irrigation Management Transfer in India**

**Water Users' Association in  
Panchanhangipatti Tank:  
A 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 B. Neelavalli 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.

B. Neelavalli'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 Gopal Naik and K.V. Raju.

The members of the study team, including B. Neelavalli, wish to thank the people of Village Panchanhangipatti, 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 Panchanhangipatti Tank: A Farmers' Experience**

Tanks are an important source of irrigation in Tamil Nadu. They are maintained by PWD or panchayats. At present many of these tanks are in poor shape. As panchayats do not have money, many tanks under them have not been properly maintained. Panchayats control more tanks than PWD.

The Panchanhangipatti tank is located in Panchanhangipatti village in Madurai district of Tamil Nadu. This village, with PRADAN's (a voluntary agency) help, has been able to transfer the working of tank management.

The village is near the Azagar hill, 22 km east from Madurai. It has hardly seen any development and has no proper transportation facilities.

### **History of the Tank**

The Panchanhangipatti tank was owned by one Mr. Draviam Pillai. The earlier generation of the present villagers worked under Mr. Pillai. During his time, the tank was maintained properly. However, the tank irrigated only his fields. During 1968-70, when the government enforced the Land Ceiling Act, Mr. Pillai's land was distributed among the villagers. Mr. Pillai had registered the tank as field. Therefore, the tank was divided among the landless villagers as fields. Eighteen farmers were given pattas (ownership title) from Mr. Pillai's excess land. Each villager was given 50 cents. Now 48 villagers have pattas.

The tank's potential command area is 35 acres, but now irrigates only 18.5 acres. This is because only 18.5 acres belongs to the 48 villagers having the pattas. The rest belongs to Mr. Pillai. Since the 48 villagers own the tank, they do not irrigate Mr. Pillai's lands.

The catchment area of the tank is 75 acres. The actual water spread area is 3.5 to 4.0 acres. The length of the tank bund is 410 metres and width 1.5 metres. There are no sluices, but only two manually regulated outlets for irrigation.

### **Farmers' Problems**

Rain water is the main source of water for this tank. The three routes through which the tank gets the water are uneven and full of shrubs. Moreover, there are two pools near the catchment area which get filled up first before the Panchanhangipatti tank got its water. The channels were unlined and their maintenance poor. All these resulted in the tank not getting enough water. The villagers were unable to irrigate their lands properly, as there was no one to control, they could not utilize the water properly.

### **Crop Pattern**

The soil here is sandy loam and loamy. Taking into consideration the soil type and water scarcity, the farmers cultivated rice in only one season. They preferred short duration varieties such as ADP 36 and IR 50. Each farmer harvested around four to six bags (1 bag = 64 kg). They sold only one or two bags after keeping aside a couple of bags for their own use. The farmers near the catchment areas grew groundnut and maize.

### **Social Structure**

The population of this village is 353. The early settlers belonged to 18 families and settled here some 80 years back. Now there are 54 families. Forty-one of them are Pallars and 13 Chakliars. Only 10 per cent of the population is literate as most of the farmers cannot afford education. The Pallars main occupation is agriculture, though some of them go for jobs outside. Most of them are small and medium farmers and rear cows and goats. The Chakliars do not own land and they work for wages. In off-season, they work in vegetable farms and sugarcane fields which use well water.

## **Village Administration**

Panchanhangipatti has a village panchayat. The Kudumbanars and Variyars administer the village. The posts are hereditary. The Kudumbanar presides over weddings and other functions and solves villagers' problems.

## **Formation of Farmers' Association**

There are 4493 tanks in Madurai district. Of these 771 belong to PWD. The PWD gets aid for maintaining the tanks from the World Bank and other bodies. Tanks under panchayats are not being maintained properly. Farmers used well water for irrigation, resulting in lowering of the ground water table.

To maintain these tanks with farmers' help, the government has formed the District Rural Development Agency (DRDA), which handles various rural development activities at district level. As most of the tanks are in small villages with no transport facilities, DRDA is unable to reach to the farmers to convince them to form associations. DRDA gave this responsibility to an NGO called PRADAN. PRADAN is a national-level NGO, and has experience in forming similar bodies in other states, and was already running a women's association in the village. The then Madurai district Collector, was instrumental in selecting PRADAN.

Under an agreement signed between DRDA and PRADAN, PRADAN will select the tanks, form a farmers' association, teach farmers the technical aspects of maintaining the tanks and getting funds from DRDA. DRDA will fund the programme, help in selecting canals and help in getting necessary documents from the government. The tank selection was subject to the following conditions:

1. The tank must not have been maintained properly for several years and must have no or minimal encroachments.

2. The farmers have to contribute 25 per cent of the repair expenses in cash or kind.
3. Most of the farmers must be small or marginal farmers.

### **Formation of the Panchanhangipatti Association**

A three member canal committee was formed in 1991, which selected Panchanhangipatti first for formation of the association. Since the farmers belonged to the same caste, PRADAN could form the association quite easily. A village panchayat meeting was called in which three PRADAN volunteers, the village leaders, and a few villagers participated. The proposal to set up an association was discussed at the meeting. The association was formed on July 17, 1991 and was registered on February 27, 1992.

### **Election of Office Bearers**

All farm owners were enrolled as members. The president, vice-president, secretary, treasurer, and assistant secretary were selected from among the members by PRADAN. The office bearers belonged to five big families of the village.

### **Finance**

The membership fee is Rs 5 and each member has to pay Rs 100 per acre every year. The secretary will collect the money and deposit it in a nationalised bank in a joint account operated by the president, secretary, and treasurer. They are careful in auditing the accounts and renewing the registration every year.

### **Changes After Formation of the Association**

The tank is being maintained properly after the association was formed. With the assistance of PRADAN's engineer, the association gets an estimate of the cost of repair work and send it to DRDA. Work is started

after getting approval from DRDA. Farmers can contribute their share either in cash or in labour (by taking part in the repair work). The Tank has been deepened and the two openings converted into sluices. Water flow is now smooth and the water retaining capacity of the tank is better. The tank is cleared of shrubs every year before the monsoon. Frequent squabbles which were a regular feature earlier have been eliminated. Water distribution is being taken care of by the 'neerpaichi'.

The farmers now go for rice varieties like ADT 36, IR 50, Culture, and IR 20. They now get three to four bags more. In 1993-94, they grew rice for two seasons because of abundant water and got an unprecedented 15 quintals.

### Changes in Irrigation System

The farmers in Panchanthangipatti became aware of water management only after the formation of the association. On PRADAN's advise, a *neerpaichi* was appointed to distribute water. The *neerpaichi* is appointed every year and is paid in kind/cash. Any farmer can operate the sluices till the transplantation of the rice. But after transplantation, the farmers get together, and appoint a *neerpaichi* who alone can operate the sluices. The *neerpaichi* has to go around the fields and open the sluices. He usually opens one sluice fully. After the water reaches the fields, he opens the next. He has to make sure that the field has received enough water before watering the next. He has to release water in equal quantity for all the fields depending upon water availability. This ensures that the farmers get enough water in time. The farmers do not have to worry about water availability.

In 1994-1995, the farmers has sown rice when the monsoon arrived in the first week of November. As there was three feet deep water in the tank, they used both tank and rain water. All of them went for Culture or IR 50 rice varieties, except for a farmer who planted the long-term IR 20 in the second week of October. This was because enough water had collected in his field.

The *neerpaichi* was appointed in the second week of November. He released water twice in the season. He released water for five days and after a 10-days gap, released water for six days. Water was distributed through the first sluice the first time and the second sluice the second.

### **Rules and Its Operation**

If anyone has to cut trees or take sand from the tank, he has to seek the approval of the association or PRADAN. A farmer was banned from using the tank water as he had not paid Rs 1,000 for the common well. But he opened the sluices himself for watering his fields. When the *neerpaichi* reported this to the Kudumbanar, the farmer was fined Rs 1,000. In another instance, six persons chopped a few trees without any permission from either PRADAN or the association. They were caught in the act and were fined Rs 100 each, which they promised to pay after the harvest.

### **Other Activities of the Association**

The association gives the farmers tree saplings to prevent soil erosion during the monsoon. The farmers get together and decide which saplings they want, PRADAN volunteers, arrange for the saplings. The association pays for the saplings. Trees prevent soil erosion and farmers need not bother much about maintaining them. They get the benefits in two or three years. In this time they also cultivate crops like maize, jowar, and groundnut in the area.

### **Changes Among Farmers**

After the formation of the association, the farmers do all work in unison. Any work is decided in a meeting. The farmers, who were earlier scared of government officials, have no fear of talking to them. Some from this association have gone to other places to help start similar bodies. The association chief, Kudumbanar, secretary, and two managing committee members underwent training at the Madurai Agricultural College on water management.

## **PRADAN's Role in the Growth of the Association**

Apart from helping the farmers maintain the tank, PRADAN helps in getting funds from the DRDA. It has taught the farmers technical aspects of maintaining the tank. It has helped the farmers in estimating the cost of each project. Five farmers were sent to the Vinayakapuram Water Management Centre and were trained on different aspects of water management. PRADAN helps the farmers in getting tree saplings. It helps the farmers in deciding the crop pattern according to the monsoon and water availability.

## **The Situation Now**

In 1994-95, a farmer diverted rain water collected in his field to other areas without any approval. This deprived the tank of water. The villagers came to know of this act very late, and they could not do anything. The farmer's brother who was in the management panel offered to resign. Because of the farmer's act the farmers got only 50 per cent of the water. Twenty farmers have got only two bags per acre. Five farmers who used well water got five bags one of them had paid Rs 500 to get water from Mr. Pillai's well. A well is being dug in the canal to prevent crop loss during periods of inadequate rain. This is a common well which will be used by all farmers.

**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-Valappan Project: Farmers' Experience
7. Water Users' Association in Panchanhangipatti 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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