

## **Socio-economic situation that led to encroachment in tank irrigation system**

D. KARPAGAM AND C. KARTHIKEYAN

*Directorate of Planning and Monitoring, Tamil Nadu Agrl. University, Coimbatore - 641 003.*

**Abstract :** An investigation was undertaken to study the socio-economic situation that led to encroachment in tank irrigation system. This study was conducted in Theni district of Tamil Nadu. The study revealed the situation that led to encroachment in tank irrigation system were aspiration, encroachers owned farm remaining adjacent to tank head region, encroacher's occupation, no objection by Government and villagers and siltation in the tank *etc.*, This study also focus the suggestion to prevent the encroachment in tank irrigation system.

**Key words :** *Socio-economic situation, Encroachment and Tank irrigation system*

### **Introduction**

Since time immemorial, irrigation has been playing a vital role in agriculture as it is indispensable for augmenting farm production. In India, the sources of irrigation are varied *viz.*, rivers, tanks and wells. There were 39,202 tanks irrigating 928,000 ha of land, which was as much as one-third of the net irrigated area in Tamil TNadu. These tank systems vary in size from small ones irrigating 10 ha to large ones feeding 5,000 ha. (Venkataswamy, 1994)

Now, the area irrigated by tanks had been declining which might be due to encroachment. Tank system are easily encroached by the individuals for cultivation and brick kilns as well as by the Government for making roads, building construction *etc.*

Farmers under the tank command concentrated mainly on ground water irrigation rather than surface irrigation. As a result, due importance was not given for maintaining the feeder channels. This induced the farmers who owned

land adjacent to tank and feeder channel to encroach it for crop cultivation. (Martin and Venkatesan, 1999). Encroachment of tank was observed in different parts namely supply channel, catchment area, foreshore area, tank bed *etc.* DHAN (2002) reported that the factors encouraging encroachments were local patrons and patronage, poor maintenance of tank, increased siltation in tanks, lack of government action on encroachers, lack of collective efforts by tank users, non-cooperation among government departments and absence of periodic monitoring by concerned.

Knowledge on socio economic situation that triggered the encroachment in tank irrigation system would provide a framework to prevent encroachment in tanks. Hence, the present work was carried out to study the socio-economic situation that led to encroachment in tank irrigation system.

### **Materials and Methods**

With the objective of to find out the socio economic situation that led to encroachment

in tank irrigation system, the study was conducted in Theni district of Tamil Nadu. Two tank irrigation systems were selected from two taluks namely Bodinayakkanur and Periyakulam. Thirty six farmers were randomly selected from each of the selected tanks, allocating equal number of sample from each end of a tank viz., Head, Middle and Tail. Accordingly, 12 farmers were selected randomly from the three ends in the two selected tanks. Hence a total of 72 farmers comprised the sample size for the study. For collecting information, PRA techniques such as group discussion and transect walk and case study approach were used. Percentage analysis was used for making simple comparison.

### Results and Discussion

Situation that encouraging encroachment in tank irrigation system were heavy siltation of the tank, owned farm area remains adjacent to tank head region and seeing those encroaches, many others emulated and encroached with a thought that there would not be any objection from the government and villagers.

#### *Socio-economic situations that led to encroachment*

It was noted that the encroachment had taken place in the tank system over a long period of time. Various factors had played to influence this activity. Hence, the socio-economic situations that facilitated the encroachment as perceived by the command area farmers were analysed. The results in this regard are given in Table 1.

It is inferred from Table 1 that more than 90 per cent of the command area farmers perceived the major reason as well as situation that led to encroachment in tank system as follows: aspiration (97.2%), encroachers owned farm remains adjacent to tank head region (95.8%), encroacher's occupation i.e. agriculture

(94.4%), no objection by Government and villagers and siltation in the tank (90.3%). More than three-fourth of the command area farmers (83.3%) perceived that landlessness was the factor that led to encroachment in tank. Other factors that led to encroachment as perceived by the command area farmers were tank being a common property (72.2%), caste (63.8%), feeling of mortification on seeing the encroachment by others (62.5%), muscle power (58.3%), poverty (20.8%) and political influence (13.2%).

In general, the situations perceived by majority of the command area farmers for encroachment in tank were encroacher's owned farm land remains adjacent to tank head region, encroacher's occupation (Agriculture), their aspiration, no objection by Government and no action by villagers.

The reason attributed that nearly 40 per cent of encroachers had owned farm area adjacent to tank. Due to siltation in foreshore area they encroached the tank. They also restricted others to encroach near their field. More than two-third of the respondents had owned patta land. But they had encroached. This might be due to the encroacher's aspiration to earn more from agriculture. Nearly one-third of the encroachers were landless. Because of that farmers perceived that landlessness arised as one of the reasons for encroachment in tank system for cultivation. Feeling of mortification on seeing the encroachment by others as well as no objection by Government and villagers had also led others to encroach the tank system. Encroachment on tank system in the study area was mostly done for agricultural purpose, as well as majority of the encroachers were farmers and agricultural labourers. Hence, occupation of the encroachers was perceived by the farmers as one of the

**Table 1. Socio-economic situations that led to encroachment**

(n=72)

S.No.	Consequences of encroachment	No.*	%
1.	Aspirations of encroachers	70	97.2
2.	Owned farm area remains adjacent to tank head region	69	95.8
3.	Occupation (farming)	68	94.4
4.	Siltation in tank	65	90.3
5.	No objection by Government and villagers	65	90.3
6.	Landless situation (less income)	60	83.3
7.	Tank being a common property	52	72.2
8.	Caste	46	63.8
9.	Feeling of mortification on seeing the encroachment by others	45	62.5
10.	Muscle power	42	58.3
11.	Poverty	15	20.8
12.	Political influence	10	13.8

\* Multiple response recorded

factors for encroachment. Majority of the encroachers belonged to the upper caste (79.2%). So farmers perceived that caste is also an important factor, which augment the encroachment in the tank system.

#### *Suggestions to prevent the encroachment*

Eviction after encroachment is a tedious work. It also creates many problems like social conflicts. So prevention is better for avoiding undesirable consequences that may happen due to encroachment in tank irrigation system.

1. Tank system need to be surveyed and should be protected by demarcating its boundaries.
2. Tank area should be frequently visited by the concerned Village Administrative Officer (VAO) to check any encroachment in tank. If there is any such sign,

they have to take necessary actions jointly with villagers to evict it.

3. Already available encroachment in tank system should be considered as a criminal one and immediate steps should be taken by stakeholders and authorities to evict it.
4. Encroachment in the tank system should be completely evicted before taking any renovation works.

Several thousands of minor irrigation tanks were subjected to encroachment at one or more locations in the irrigation system. Absence of proper foreshore bund led to draining of floodwater into the tank, which came in handy for the encroachers to occupy a part of the tank. Encroachment had direct influence over the tank performance. For protecting tanks from encroachment, tanks need to be resurveyed;

boundaries fixed and handed over to the local village associations.

### References

DHAN Foundation. (2002) A Study on Tanks and Ponds. NOVIB, The Netherlands and DHAN Foundation, India.

Martin Selvaraj, S. and Venkatesan, N. (1999). Encroachments and Evictions in Tank Systems: A Case Study of Athikarikulam

Tank in Theni District. *Tank Cascade - A Development Journal on Irrigation Tanks in South India*, DHAN Foundation, Madurai, Vol.1, No.2&3, Sep. & Dec, 1999, pp.31-41.

Venkataswamy, R. (1994). Success Story of Farmer's Organization in a Tank Irrigation System in Tamil Nadu. *In: R.K.Gurjar (ed.). Planning and Policies of Irrigation Management*. Rupa Offset Printers, Jaipur, pp. 134-144.

---