

Availability and Accessibility of Drinking water in Mudukulathur Taluk, Ramanathapuram District

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Abstract: This paper gives wider knowledge about pervasiveness of availability and accessibility of drinking water in Mudukulathur taluk and how people in the taluk manage the drinking water scarcity through ooranies, bore well water, well water, Kanmois, etc. It brings more of realities that prevail among these villages with regard to how people use their ways and means of fetching water, far away from their residence and the sense of solidarity being established among villagers. Furthermore, it clearly pictures the reality of how people spend and struggle for several hours a day for drinking water.

Keywords: Availability, Accessibility, Ooranie, Bore well water, Well water, RO plant, Can water, Kanmois.

1. INTRODUCTION

Water is one of the most important substances on earth. "The World cannot exist without water" said by Thiruvalluvar, Tamil Poet.

Water resource experts from various parts of the world have been sounding with more warnings that the world is heading towards a water shock which may end up with drastic and huge loss of human lives. Some of the social concerned people of the world keep reminding everybody in anticipation that every human being needs to be more sensitive towards water, if not, every individual may have to witness the third world war for water.

Shortage of water and pollution of water in India have been on the increase and significantly it is the people in rural areas and the poorest of the poor who are most affected by water pollution and shortage.

Ramanathapuram district is one of such water starved districts in the state of Tamil Nadu, India. It has a tropical climate receiving an annual average rainfall of 827 mm in 48 rainy days. Rainfall is bimodal and erratic in nature. The period from May to June is generally hot and dry. However, the weather is pleasant during the period from December to January. The district is administered with seven Taluks and eleven panchayat unions. Among eleven panchayat unions, Kamudhi, Kadaladi and Mudukulathur unions are highly susceptible to the water scarcity and chronic drought has been witnessed by the people in the district.

Several parts of Mudukulathur Taluk are reeling under an acute shortage of drinking water, as most of the water sources have dried up completely. It is one of the few blocks in the State of Tamil Nadu in India where people have no other means except to fetch drinking water from 'ooranies' or local sources. Most of the 'ooranies' and 'kanmois' in the block have gone dry. Most areas in the block are worse hit and the local bodies here find it difficult to manage the situation with meagre resources.

Now, the people are virtually dependent on private drinking water supplied through Lorries and can water. They sell a pot (18 litres) of water for Rs.5 and a can of RO plant water (20 liters per can) for Rs.30. Most of the residents of the taluk who used to live peacefully with the water sources available in their areas itself are forced to buy water from outside of their villages.

It has been highly witnessed and realized that rainfall has drastically reduced and the kanmois and ooranis in the taluk have dried up. The year 2013 experienced high demand for water. The kanmois and Ooranies which were providing drinking water to the people have become handicapped and are unable to satisfy the thirst of the people here.

“The yield of bore wells drilled down to a depth of 40 to 70 m, by various state agencies mainly for domestic purposes ranged from 10 to 250 lpm. The depth to water level in the district varied between 0.67-12.12 m bgl during pre-monsoon depth to water level (May 2006) and varied between 0.49-8.78 m bgl during post monsoon depth to water level (Jan 2007). The seasonal fluctuation shows a rise in water level, which ranges from 0.35 to 2.8 m bgl. The piezometric head varied between 3.49 to 16.23 m bgl (May 2006) during pre monsoon and 1.29 to 8.06 m bgl during post monsoon” - *District Groundwater Brochure Ramanathapuram District, Tamil Nadu (April 2009)*.

‘To provide every rural person with safe water for drinking, cooking and other domestic basic needs on a sustainable basis. This basic requirement should meet certain minimum water quality standards and be readily and conveniently accessible at all times and in all situations’- National Rural drinking Water Program (NRDWP-2011). Outlay of the program in the year 2011 was Rs. 9,000 crore. The key target was to cover all uncovered, quality affected and other habitations and households and schools with safe and adequate drinking water supply. Key components of the program was - providing 45% of safe and adequate drinking water supply to unserved, partially served and slipped back habitations; providing 20% of potable drinking water to affected habitations; encouraging States to achieve 20% of drinking water security at the local level; 10% of Operation and Maintenance (O&M) for expenditure on running, repair and replacement costs of drinking water supply projects and 5% of support activities; allocation for Desert Development Program (DDP) areas to tackle the extreme conditions of low rainfall and poor water availability; earmarking funds to mitigate drinking water problems in rural areas in the wake of natural calamities.

2. PROBLEMS FACED BY THE PEOPLE OF THE STUDY AREAS

2.1 The infrastructure provided by the Government to supply water to rural villages is inadequate and totally unfair:

2.1.1 Villages located furthest away from the low lands of the study areas rarely have a water supply due to pipes being unable to cope with the demand of the people.

2.1.2 Due to the infrequency (almost nil) of this water supply, villages have to approach the neighbouring villages for drinking, domestic and cooking purposes.

2.1.3 Deteriorating conditions of ooranies that cannot store adequate amounts of drinking water for the community especially during the hot season

2.2 The traditional discrimination inflicted on women means that they have sole responsibility to ensure that water is available for the family's needs. This burden disadvantages them in many ways:

2.2.1 They have to walk 3 to 4kms round trip on a daily basis in order to collect water.

2.2.2 Their welfare and needs have lowest priority in both the household and the community.

2.2.3 With lack of water, it is difficult to maintain sanitation and hygiene levels leading to ill health and malnutrition, especially amongst women and children.

Keeping the above status in mind, the researcher studied 10 worst affected villages in Mudukulathur taluk of Ramanathapuram district.

3. METHODS

Exploratory research design has been adopted in this study. Both the primary and secondary data were used. Primary data was collected through personally prepared Interview Schedule. Secondary data was collected from books, journals, research papers, articles, Government data, websites, and various governments' published sources. Systematic stratified Random Sampling was adopted to select the unit of the study.

The researcher randomly made physical visits of 30 villages of 10 panchayats in Mudukulathur taluk and had enriching interactions (with the preplanned questions related to availability and accessibility of drinking water in the villages) with villagers of the taluk. The sharing points were collected in a separate note –pad with the permission of sharers. The researcher again randomly selected 10 most affected villages from three panchayats of 30 villages in 10 panchayats already visited. The researcher sat with individuals of the selected villages of the study and interacted with them of their life styles, economic status, livelihoods, agricultural patterns, water status, ways and means of managing drinking water scarcity, political influences and relationship with local government authorities.

Table: 1- Sample villages: Respondents

Sample	Name of Panchayat	Name of Village
1	Ponnackanery	Pockalarendal
2		Ponnackanery
3		P.Saveriyarpattinam
4	Ulaiyur	Kodarendal
5		Nediyamanickam
6		Ulaiyur
7	Valanadu	Chengarpadai
8		Deivathanai
9		Pushpavanam
10		Valanadu

4. RESULTS AND DISCUSSION

4.1 Availability of drinking water

All the villagers (100%) of 10 studied villages are farmers and cultivating paddy, chilly, cotton, black and green grams and vegetables that are cultivated with less water. The people are not economically well-off but they all vary from poor to middle classes. They do depend on ground water for their cultivations.

Chart: 1 Season wise normal rainfall in Ramanathapuram district

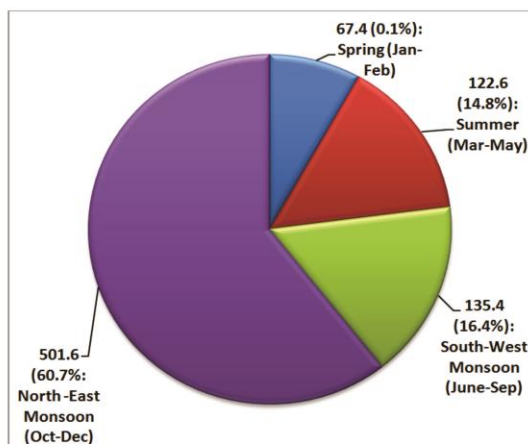
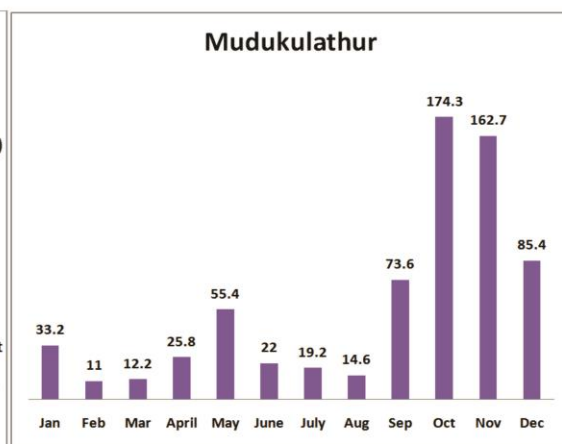


Chart: 2 Monthly wise normal rainfall in Mudukulathur Taluk



Source: <http://www.ramnad.tn.nic.in/rainfall1.htm>

Charts (1 and 2): Rainfall status in Mudukulathur Taluk (in mm)

The above charts (1 and 2) say that Ramanathapuram district and Mudukulathur Taluk has less rainfall comparatively. During the months of October, November and December, the rainfall goes up relatively.

The Ooranie mostly get filled with rainwater showered during the seasonal rainfall of the north-east monsoon. The villagers get Ooranie water for 10 months (depending on the capacity of Ooranie). If the Ooranie has less capacity of rainwater, people face difficulties during the summer season without proper drinking water.

Availability of drinking water in the above studied villages was not uniform and it differed from one village to another village.

Table: 2

Availability and Accessibility of Drinking Water in Mudukulathur Taluk, Ramanathapuram District - Survey Data										
S. No	Name of Panchayat	Name of Village	No of Households	No of people Residing	Drinking Water Facilities Initiated by Villagers Themselves			Drinking Water Facilities Initiated by Govt		
					Ooranie	Well	Bore-well	Bore-well	RO Plant	Cauvery River
1	Ponnackanery	Ponnackanery	120	525	1	1	1 with salty	0	0	Pipeline provision is there but no water service
2		Pockalarendal	170	820	1	0	0	1 with salty	1	Pipeline provision is there but no water service
3		P.Saveriyarpattinam	50	235	1	1	0	1 with salty	0	Pipeline provision is there but no water service
4	Ulaiyur	Ulaiyur	300	1500	1	0	1 with salty	4 with salty	1	Pipeline provision is there but no water service
5		Kodarendal	240	1200	1	1	1 with salty	1 with salty	0	Pipeline provision is there but no water service
6		Nediyamanickam	150	880	1	0	0	1 with salty	0	Pipeline provision is there but no water service
7	Valanadu	Valanadu	300	1200	1	1	0	2 with salty	0	Pipeline provision is there but no water service
8		Pushpavanam	90	450	1	1	1 with salty	1 with salty	0	Pipeline provision is there but no water service
9		Chengarpadai	150	600	1	1	0	1 with salty	0	Pipeline provision is there but no water service
10		Deivathanai	60	315	1	1	0	1 with salty	0	Pipeline provision is there but no water service
Total			1630	7725	10	7	4	13	2	

Ponnackanery is the village and it is the head of one of the Panchayats in Mudukulathur taluk of Ramanathapuram district. There are five villages which come under this panchayat. The researcher has taken three villages of this panchayat for this particular study.

Ponnackanery as a village is enriched with a separate Ooranie and a well on the bunds of the Ooranie, exclusively for drinking purpose. The Ooranie and the well have been fenced guarding the entry of domestic animals like goats and cows. The villagers use both Ooranie and well water for drinking purposes. The Ooranie water remains for 10 months in a year and the people use exclusively well water during the rest of the two months. The neighbouring villages, Pockalarendal and Nediyamanickam depend on the Ooranie and well in Ponnackanery.

Ulaiyur panchayat has three villages. Kodarendal village has one Ooranie and a well and the water is used for drinking. Most of the people in the village have individual RO plants in their houses and some of them buy can water for Rs.30.

Valanadu panchayat has five villages. Pushpavanam and Valanadu have their own Ooranie and well. People from Chengarpadai and P.Saveriyarpattinam villages fetch drinking water from Pushpavanam and people from Deivathanai and Karupilaimadam fetch water from the Ooranie and well of Valanadu. It is also found that some of the people in the villages of Pushpavanam, Valanadu do buy can water (20 litres) for Rs.30. The can water distribution has been engaged by local companies.

It was also found during the physical visits and interactions with the villagers that the villages of Pockalarendal and Ulaiyur with the help of government have installed each (one) RO plant in common places of the villages. Water from the RO plant is not freely distributed but sold to all lines of people. It is an automatic machine. If they insert Rs.5 they get 18 litres of water. It was imbibed through the sharing of the villagers that the capacity of the RO plant tank is 1000 litres. People cannot waste water washing their pots and vessels before filling water from the tap of the RO plant.

The taluk has Cauvery river water scheme in almost all the panchayats but no such extension of providing water in a continual basis is made. The people of this taluk are in dire need of drinking water during summer season (months of April, May and June). Their normal lives in summer season become worse without potable drinking water.

4.2 Accessibility of drinking water

It was learned through this study that 2,850 people; Nediyanickam (880), Pockalarendal (820), Chengarpadai (600), P.Saveriyarpattinam (235) and Deivathanai (315) from villages are depending on their neighbouring villages for drinking water distanced between 3 and 4 kms.

People use two-wheeler bikes, bicycles, trolley (with a capacity of maximum 6 pots) and some of the people go on foot to fetch drinking water from the neighbouring villages. It has been learned during the interaction with the villagers that no village agitated on the entry of other villagers to fetch water from their village(s). More of generosity has been widely experienced among the villagers of the study areas.

4.3 Discussion

Earlier decades' practices of traditional water bodies and maintenance and management by local bodies were highly appreciated. Total work of water management in rural areas was under local bodies and they all had great support of each other in the villages.

Water resources were safeguarded by villagers themselves and no villager moved to another village to fetch drinking water. Though they had a lot of goods sharing among the neighbouring villagers they never went to another village to fetch drinking water as they had sufficient drinking water facilities in their villages itself.

Due to lack of constructive plans in the recent past and present, the future becomes a question mark in getting sufficient drinking water.

It is an appropriate time that the governments (both State and Centre) play a vital role to consider 'People centred planning and implementations are very essential in rehabilitation of drinking water for Ooranies'.

5. RECOMMENDATIONS

- Mudukulathur taluk needs to be seriously considered as vulnerable to water level depletion.
- Cauvery River water scheme could be regularized and potable drinking water could be distributed regularly to the people of the study area.
- Separate Ooranies and open wells on the bunds of the Ooranies (for drinking water purpose) could be dug in villages of those which do not have such facilities in their villages. The Ooranies could be dug nearby the residence of the villages. It may reduce the burden of villagers walking far from their residence and maintenance of Ooranies could be made possible.
- The Ooranies could be deepened periodically by the government itself in order to increase the storage of rain water and stability of ground water could be extended or prolonged for some more days/ weeks/ months.

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