1. **Village Profile**

Village Name - Poochamarathur
Panchayat - Kemmarampalayam
No. of households - 17
Population - 60 approx
Community - Irular
Institutions in the village (if any): Resort – Eco tourism is an alternative livelihood for the village.

2. **Background of the village**

History

One among the traditional Irula village inhibited several centuries ago by the Irulas is located in the Pillur dam region. It falls under the administrative panchayat of Kemmarampalayam panchayat, Coimbatore District.

Developments (Time-line)

The types of houses were earlier thatched roof and small hut type houses. The new line houses were sanctioned and built during 2001 – 2002 with an estimate of 34,000 Rs for each house.

The source of water to the village was an open well, however due to the non availability of water in the summer season people have abandoned using the well several decades ago (50 years as per a village elderly women). The panchayat has drilled in 2 bore holes and hand pump were set up in the past decade and it was a failure as these sources yielded no water. This year (2017) the panchayat has again invested in a Borehole, the people complain that the 3rd borehole is a failure and is not yielding water.

The village is on the other side of Pillur dam reservoir. Access to the village is through a kutcha road which takes 30 mins from Pillur dam. The people also use small hand rowing boats to cross the dam (which takes approximately 45 minutes to one hour) and access facilities on the other side of the dam. This village is not connected by bus, the people will have to commute through road or boat to use the public transport. There is no Hospital or school in the village. They have to go Velliankadu to attend school and medical emergencies .

The community is traditionally practices agriculture and collects NTFP from the forests around. However due to changes in weather and failure of monsoons in the past few years, the non availability of infrastructure for pumping water has forced the people to abandon agriculture and find alternate livelihoods. Now the people work in a Resort which has come nearby the village to earn an income.

3. **Water supply and demand**

Average daily water demand of the village (Liters per day)

Summer - 5010 lpd (w/o washing= 2260 lpd)
Monsoon - 5080 lpd (w/o washing= 2260 lpd)

Average daily water demand of the household (Liters per day)

Summer - 295 lpd (w/o washing= 130 lpd)
Monsoon - 300 lpd (w/o washing= 130 lpd)

Average daily water supply in the village (Liters per day)

Right now there is no mechanized supply. People fetch water from the stream which runs below which is 500 meters downhill from the village.

Average daily shortfall/surplus in water supply in the village (Liters per day)

Summer - Cannot be determined
Monsoon - Cannot be determined

4. **Water Storage facilities**

4(a). Water Storage facilities in a household in the village

Households harvesting rain water at home	Yes
Average water storage capacity in a household (in liters)	350
Maximum storage capacity in a household (in liters)	200

4(b). Water Storage facilities in the village

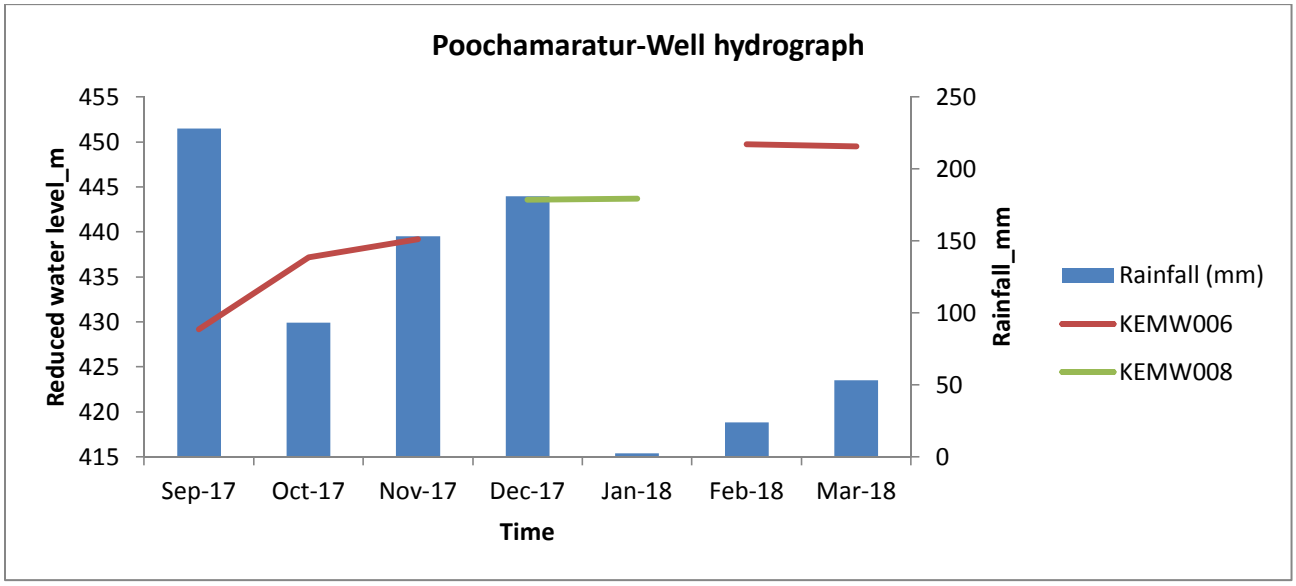
An Elevated Level Reservoir with a capacity of 10,000lt in the village.

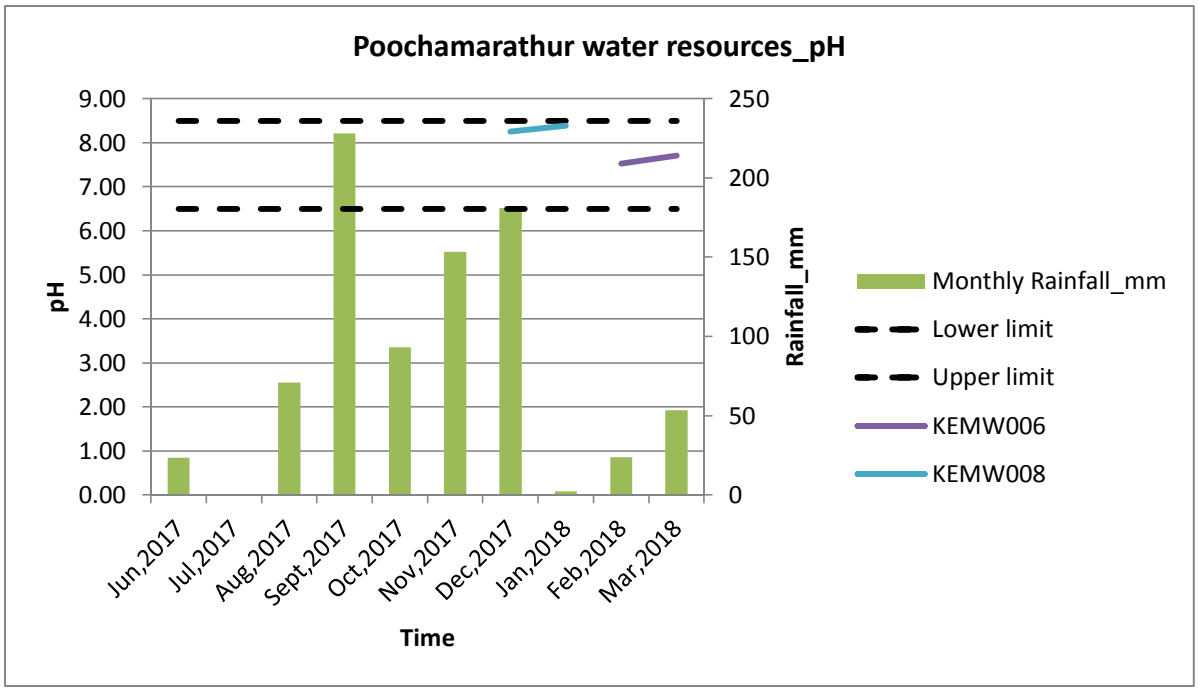
5. **Water Resources (Provide details of all water resources)**

S No.	Name of the water resource	Source ID (if any)	Type of resource (Spring/Open well/wetland /Bore well/stream)	Dimensions of the water resource (Spring-length, width, depth; Well- total depth) in meters	Seasonality	Springshed/catchment area (Acres)	Land ownership	Land-use pattern of the watershed area	Geology of the watershed area
1	Munikarai 1	KEM102	Spring	2*6*3	Seasonal	6	Forest		Charnokite and gneissic rock overlain by lateritic mountain soil, Metamorphic rock
2	Munikarai 2	KEM103	Spring	2*6*3	Seasonal	6	Forest		Charnokite and gneissic rock overlain by lateritic mountain soil, Metamorphic rock
3	Poochamarathur open-well	KEMW006	Open well	8*12	Seasonal	6	Stream bed	Forests and Agriculture	Charnokite and gneissic rock overlain by lateritic mountain soil
4	Bore well new	KEMW008	Bore well	2*2	Seasonal	2	Panchayat	Forests, Agriculture land and village	Charnokite and gneissic rock overlain by lateritic mountian soil
5	Hand pump	No data on Inventory			Dry		Panchayat	Forests, Agriculture land and village	Charnokite and gneissic rock overlain by lateritic mountian soil
6	Hand pump	No data on Inventory			Dry		Panchayat	Forests, Agriculture land and village	Charnokite and gneissic rock overlain by lateritic mountian soil
7	Poochamarathur stream	No data on Inventory	Stream		perennial		Dam and EB	Forest and Agriculture lands	Charnokite and gneissic rock overlain by lateritic mountian soil

S No.	Name of the water resource	Source ID (if any)	Type of resource (Spring/Open well/wetland /Bore well/stream)	Users of the water from this resource (People/Wildlife/School/Anganwadi/ PHC/resort/private estate/community toilet etc.) List all	How is the water delivered from the source? Describe	Which storage infrastructure is used? Give code from section 2.	State of sanitation near the source (toilet, waste dumps, OD, etc)	Water Quality issues (in different seasons)	Other issues (In different seasons)	Long term prospect (Will it remain perennial)
1	Munikarai 1	KEM102	Spring	Community, Livestock, wildlife	Water not tapped by community	NA	Nothing	Nothing	Nothing	Source would exist until the forest does.
2	Munikarai 2	KEM103	Spring	Livestock, wildlife	Water not tapped by community	NA	Nothing	Nothing	Nothing	Source would exist until the forest does.
3	Poochamarathur well	KEMW006	Open well	Community, Livestock	No longer in use	NA	Nothing	Nothing	Nothing	
4	Bore well new	KEMW008	Bore well	Community, Livestock	Pipeline	ELR1	Nothing	Nothing	Nothing	

6. **Spring Hydrographs and Water Quality**





Note:
Permissible limit for pH is between 6.5 and 8.5

Note:

- Total Dissolved Solids (TDS) is present in water within the permissible limits. Due to inconsistent data graphical representation could not be given.
- There is no coliform present in both open-well and bore-well water.

6. Discussions and Interventions

These following interventions were discussed at common village meetings facilitated by Community Resource Person from Keystone Foundation who regularly monitors the water resources for its discharge and water quality from June, 2017 till March, 2018. These interventions were agreed by the village, some of which have already been implemented under Village Water Security Plan by community and Keystone.

Name of the water resource	Source ID	Interventions	Expenditures (Rs)	Status
Baralie Valve hose leakage water		To tap the leakage water from *Baralie valve hose* using pipeline.	Cost of pipeline Rs 10,60,000	Planned. High financial cost involved for implementation.
Poochamarathur stream		To pump water from the stream.	Solar pump and pipeline Rs 2,75,000	Discussed. No interest from people.

DETAILED DISCUSSIONS

Discussion 1 **: July, 2017**
Source **: Baralie Valve hose leakage water**
Intervention **: To lay new pipeline from a valve leakage that would meet both domestic and irrigation demands of the village.**
Total expenditure **: Rs. 10,60,000 approx.**

Interventions	Reason (benefits)	Expenditure (Rs)
To tap the leakage water from *Baralie valve hose* using pipeline.	To ensure regular supply of adequate water for both irrigation and domestic consumption irrespective of monsoon. *Permission from Forest Dept. (FD) has been taken by the village, but finance for pipeline is at line with Panchayat, and FD.*	**Cost of pipeline:** Rs240/m of 3" pipe*3000m, Rs160/m of 2.5"pipe*2000m, Rs20,000 for other materials **TOTAL COST =Rs 10,60,000**

Discussion 2 : **Jan, 2017**
Source : **Baralie Valve hose leakage water**
Intervention : **To pump water from the stream to the village.**
Total expenditure : **Rs. 10,60,000 approx.**

Interventions	Reason (benefits)	Expenditure (Rs)
To pump water from the stream to ELR in the village to meet drinking and other domestic needs.	To ensure regular supply of water to meet drinking and other domestic needs. *Currently, the village is dependent on water from bore-well to meet domestic needs. The village people prefer to tap Babalie valve hose leakage that supports domestic consumption and agriculture rather than stream water. The flow of stream water reduces in summer, and it is yet again an uncertainty of regular supply of water to the village.*	**Cost of Solar pump:** (a) 2H.P motor with 2.8Kilowatt, 3 phase =Rs 2,50,000 (b) 5H.P motor with 5.5Kilowatt, 3 phase =Rs 3,44,000 **OR** HP Bore-well submersible motor with 14 stage pump Head 300 feet=Rs 11,500 Panel box manual type =Rs 2,850 **Structure to protect submersible pump from floods in the stream** Concrete rings =Rs 2,000 **Cost of pipeline:** Rs 45/meter*500m =Rs 22,500 **TOTAL COST** **Pumping from solar pump =Rs 2,75,000** **OR** **Pumping from bore-well submersible =Rs 36,000**

7. Maintenance and Intervention

Operations to ensure regular equitable water supply to every household in respective villages

- Tapping leakage water from Baralie valve hose till village ELR to meet both domestic and irrigation demands for water in the village by all households that does manual or monetary contribution in laying pipeline.
- If other families those have moved to other places but whose land rights are there in the village comes back, then, sharing of water for irrigation would depend on priority basis. i.e. first preference to those already residing families who contributed to the efforts of bring water to the village.
- Storing water respective sources in the village ELR and accessing water from the ELR than tapping it directly from the source.
- Opening the water outlet from the ELR in the morning and/or evening, so that all families can fetch water from a common point.
- In case of shortage of water, deciding on quota of water each family can take/ use with a given timings.

Maintenance to ensure

- Removal of leaves/blocks from the pipeline coming from the source
- Cleaning of ELR tank once in two months
- Checking pipelines for leakage and repairing it as and when need arises
- Monitoring of discharge from the spring and water quality by a person from the respective village

8. Other agencies and village institutions

- Forests Rights Act Committee
- Eco-tourism where village people are employed to prepare food for guests and maintain the resorts.

9. Finances

- There is no saving group in the village.
- There is no pump-operator appointed for the village, and people collectively take responsibility to ensure regular working condition of the bore-well motor.

Annexure

A1. Maps

- Habitation
- Surrounding area
- GPS location of water resources, GLR
- Catchment area

A2. Photos from the field