1. **Village Profile**

Village Name - Chemmanatham
Panchayat - Masinagudi
No. of households - 45
Population - 160
Community - Irular
Institutions in the village (if any) - Community hall, Tuition centre

2. **Water supply and demand**

Average daily water demand of the village (Liters per day)
Summer 15,375 lpd (w/o washing= 8,715 lpd)
Monsoon 15,285 lpd (w/o washing= 8,625 lpd)

Average daily water demand of the household (Liters per day)
Summer 342 lpd (w/o washing= 194 lpd)
Monsoon 340 lpd (w/o washing= 192 lpd)

Average daily water supply in the village (Liters per day)
Summer 3,500 lpd
Monsoon 3,500 lpd
Note: Masinagudi dam water is supplied to the village once in a week. Every household fetches 20pots of water. Capacity of each pot is 16liters. GLR capacity is 10,000liters.

Average daily **shortfall**/surplus in water supply in the village (Liters per day)
Summer 11,875 lpd (w/o washing= 5,215 lpd)
Monsoon 11,785 lpd (w/o washing= 5,125 lpd)

3. **Water Storage facilities**

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

Households harvesting rain water at home	No
Average water storage capacity in a household (in liters)	515
% of households with storage capacity of 1000 liters or less	300

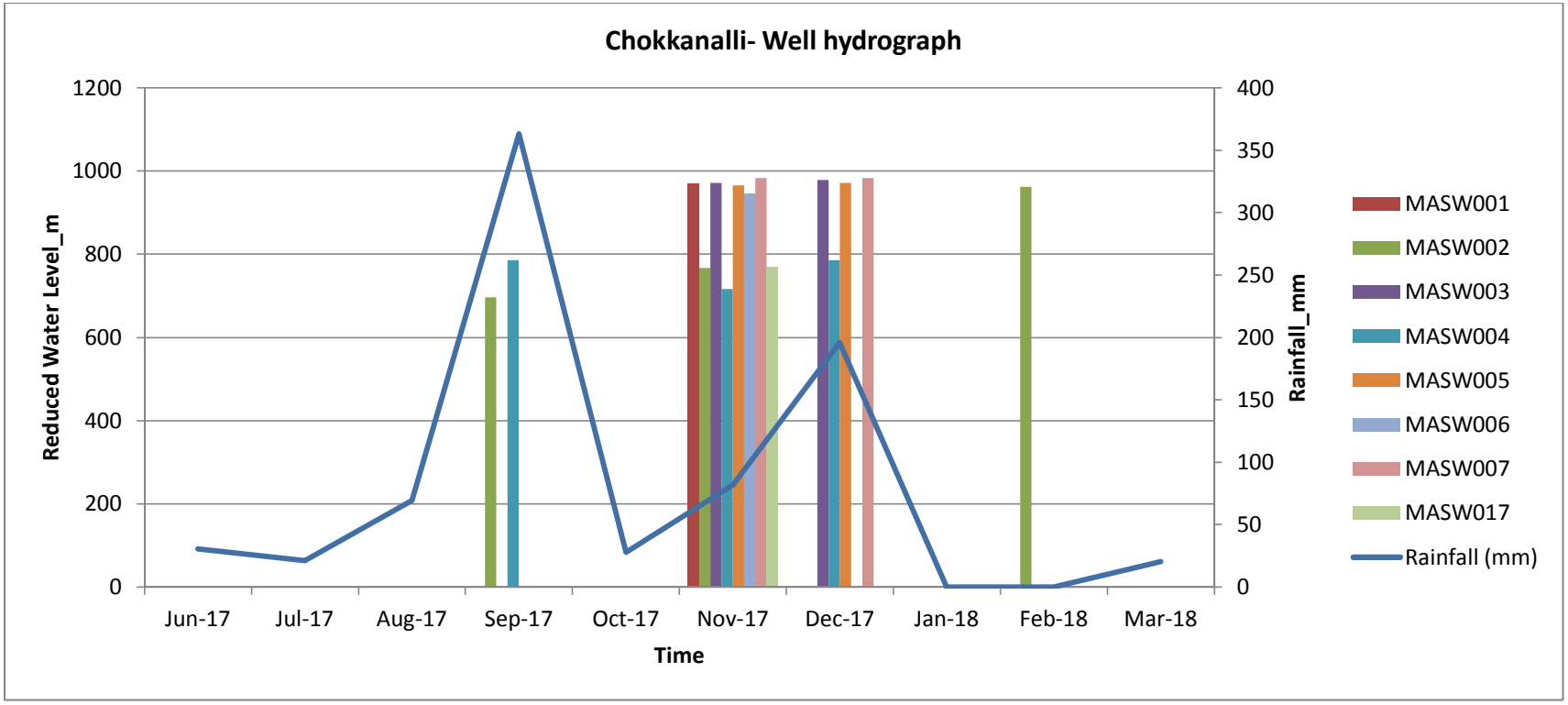
3(b).Water Storage facilities in the village
Three Ground Level Reservoirs each with a minimum capacity of 10,000lt in the village

4. **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- diameter, total depth) in meters	Seasonality	Spring-shed/ catchment area (Acres)	Land ownership	Land-use pattern of the watershed area	Geology of the watershed area
1	Chemmanatham	MAS001	Spring	DNA	Perennial		Panchayat		
2	Old kovil bavi	MASW001	Open-well	DNA	Seasonal		Private		
3	Bore-Elanthai maram	MASW002	Borewell	270	Perennial		Panchayat		
4	Kal bavi-Mukkarsi maram	MASW003	Open-well	7.42*7.2	Seasonal		Private	Agriculture field	
5	Old bore-motor room	MASW004	Borewell	200*	Perennial		Panchayat		
6	Ring bavi-bamboo tree	MASW005	Open-well	1.66*6.7	Seasonal		Panchayat	Agriculture field	
7	Bavi-Motor room	MASW006	Open-well	4.4*7.15	Seasonal		Panchayat		
8	Ring bavi-Elanthai maram	MASW007	Open-well	1.7*6.96	Seasonal		Panchayat	Agriculture field	
9	Bore-Earth post	MASW017	Borewell	200	Perennial		Panchayat		

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	State of sanitation near the source (toilet, waste dumps, OD, etc)	Water Quality issues	Other issues	Long term prospect
1	Chemmanatham	MAS001	Spring	Community, Livestock, Wildlife, Agriculture		Open Defecation	Nothing	Nothing	
2	Old kovil bavi	MASW001	Open-well	Unused		Nothing	Nothing	Nothing	
3	Bore-Elanthai maram	MASW002	Borewell	Community		Toilets, OD	Nothing	Nothing	
4	Kal bavi-Mukkarsi maram	MASW003	Open-well	Unused		Waste dump, OD	Nothing	Nothing	
5	Old bore-motor room	MASW004	Borewell	Community, Livestock	Pipeline	OD	Nothing	Nothing	
6	Ring bavi-bamboo tree	MASW005	Open-well	Unused		OD	Nothing	Nothing	
7	Bavi-Motor room	MASW006	Open-well	Unused		OD	Nothing	Nothing	
8	Ring bavi-Elanthai maram	MASW007	Open-well	Unused		OD	Nothing	Nothing	
9	Bore-Earth post	MASW017	Borewell	Community	Pipeline	OD	Nothing	Nothing	

5. **Well Hydrograph**



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
Old bore-motor room	MASW004	To lay pipeline from the source to the village.	Cost of pipeline =Rs 36,000	Done Material cost borne by Keystone. Labour by community.
Kal bavi-Mukkarsi maram	MASW003	Taking trenches above MASW003 to use it as a recharge pit for all the open-wells and bore-wells.	Nil	Planned Labour by community.

Discussion 1 : **Dec, 2017**
Source : **Old bore-motor room (MASW004)**
Intervention : **To lay pipeline from bore-well to the village.**
Total expenditure : **Rs. 36,000 approx.**

Interventions	Reason (benefits)	Expenditure (Rs)
To lay pipeline from the source to the village.	Current bill for operating the motor not paid by the village. Previous pump-operator has replaced Masinagudi dam water pipelines with MASW004. *Masinagudi Youth Welfare Association (MYWA) and Grace Charitable Trust have given up on providing any basic services to the village because of lack of co-operation and commitment by the community. Keystone has also experienced the similar case with the village after providing pipelines form Bore-well (MASW004) till village GLR. The pipeline has not been properly laid by the people even after three months. Pump-operator does the work with help of three women from the village every evening.*	**Cost of pipeline** Rs.120*300m of 2" H.D pipe **TOTAL COST =Rs 36,000**

Discussion 2 : **Jan, 2018**
Source : **Kal bavi-Mukkarsi maram (MASW003)**
Intervention : **To take trenches above MASW003 to use it as a recharge pit.**
Total expenditure : **Rs. 36,000 approx.**

Interventions	Reason (benefits)	Expenditure (Rs)
To take trenches above MASW003 to use it as a recharge pit for all the open-wells and bore-wells.	To improve soil moisture conservation in the barren agriculture fields, and to recharge aquifers by planting grass species to use it as a recharge pit for all the open-wells and bore-wells. *Work to be initiated in monsoon season. It gets easier to dig pits in wet soil than it being dry in summer. There is also a cultural belief that there is a hidden treasure in the ground which stops people from using it as an open-well.*	Labour contribution by the community

General Discussions : Nov-March, 2018
Village : Chemmanatham

These interventions did not seem feasible to solve the water scarcity problem in the villages.

1. To deepen the depth of open-well (MASW007) to further 6m from current depth.
Expense: Cost of labour with 10 people working at NREGA wage-rate for 10 days would be Rs 40,000.
Status : Not viable. In the initial discussions there was a need to check for viability for deepening the source, as the well has already hit hard rock at its current depth. Added to that, the source had gone dry by December, 2017. In one of the follow-up meetings with the community, it was learnt that the nearby stream water is pumped to the open-well which is again pumped to the village GLR. After concerning ACWADAM for their opinion, the plan to dig the well deeper was dropped.

7. Maintenance and Intervention

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

- Storing bore-well along with Masinagudi dam water in the village GLR and accessing water from the GLR than tapping it directly from the source.
- Opening the water outlet from the GLR in the morning and/or evening, so that all families can fetch water from a common point taps.
- In case of shortage of water, deciding on quota of water each family can take with a given timings would improve efficiency in distribution.

Maintenance to ensure

- Removal of leaves/blocks from the pipeline coming from the source
- Cleaning of GLR 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

- Active women's group in the village
- Masinagudi Youth Welfare Association (MYWA)
- Grace Charitable Trust

9. Finances

- There is no saving group in the village.
- There is a pump-operator who is appointed by the panchayat for the village, and it is he who turns pipe valves and attends to any problems in the pipeline, and other water infrastructures.

Annexure

A1. Maps

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

A2. Photos from the field