

1. Village Profile

Village Name - Vellarikombai
 Panchayat - Kunjapanai
 No. of households - 25
 Population - 65
 Community - Kurumbar
 Institutions in the village (if any): Community ground

2. Water supply and demand

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

Summer -10460lpd (w/o washing 5260lpd)
 Monsoon -9330lpd (w/o washing 4120lpd)

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

Summer -420lpd (w/o washing 210lpd)
 Monsoon -370lpd (w/o washing 165lpd)

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

Summer - 1500lpd
 Monsoon - 2625lpd

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

Summer - Shortfall of 8950lpd
 Monsoon - Shortfall of 6700lpd

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)	242
Maximum storage capacity in a household (in liters)	250

3(b).Water Storage facilities in the village

Two Ground Level Reservoirs (GLRs) where one is at source and the other at the village.

4. Water Resources

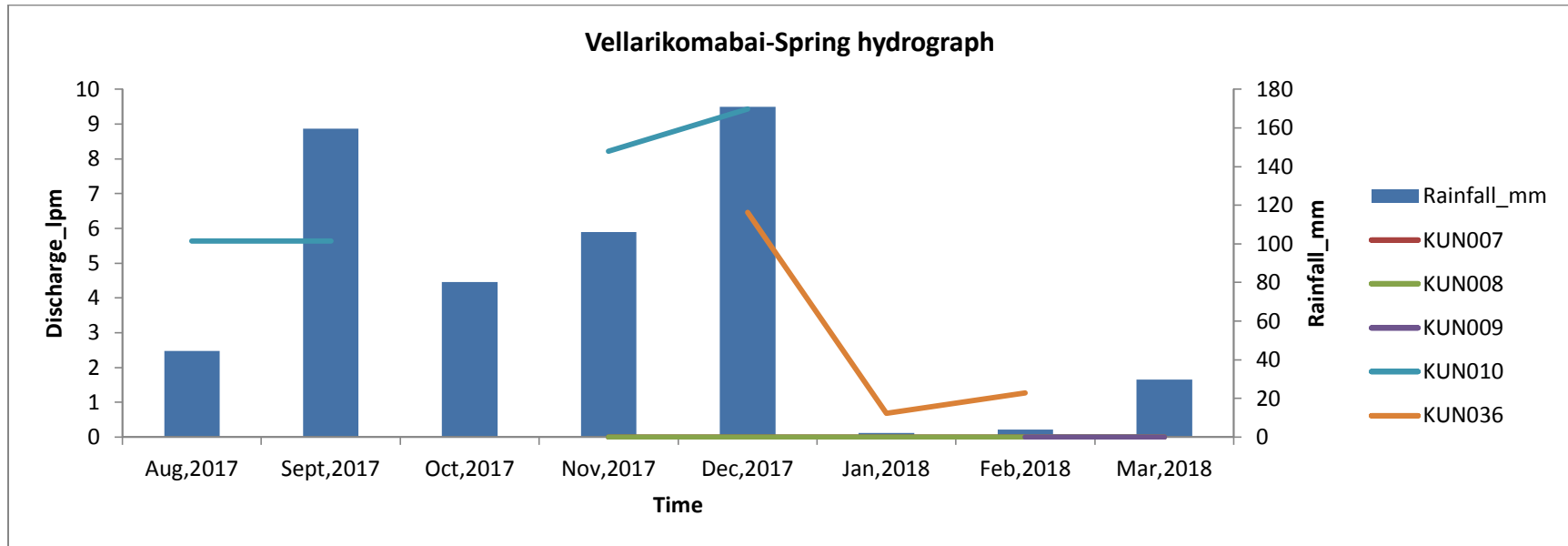
S No	Name of the water resource	Source ID (if any)	Type of resource (Spring/Open well/wetland/Bore well/stream)	Dimensions of the water resource (Spring-length, width, depth; Well-total depth)	Seasonality	Springshed/catchment area (Acres)	Land ownership	Land-use pattern of the watershed area	Geology of the watershed area
1	Koogai bavi 2	KUN036	Spring	(2.74m,1.6m,1.2m)	Perennial		Panchayat		Black soil
2	Devayerai	KUN004	Spring	(2m,2m,1m)	Perennial		Community		Black soil, black stone
3	Kabugundi	KUN005	Spring		Seasonal		Community		Black soil, black stone
4	Boothiedugu	KUN006	Spring	(2m,2m,1m)	Perennial		Community		Black soil, black stone
5	Orangebaavi	KUN007	Spring	(8m,3m,1m)	Perennial		Community		Black clay soil, black stone
6	Kovaalbaavi	KUN008	Spring		Perennial		Community		Black soil, black stone
7	Neribaavi	KUN009	Spring	(3m,3m,2m)	Seasonal		Community		Black stone
8	Attaynaali	KUN010	Spring	(0.5m,0.5m,0m)	Perennial		Forest		Don't know

Note- Total spring-shed area of all springs is 200 acres. Rather than marking each small spring-shed separately, the total area has been demarcated.

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	Koogai bavi 2	KUN036	Spring	Community, wildlife	Pipeline	GLR				
2	Devayerai	KUN004	Spring	Community, wildlife						
3	Kabugundi	KUN005	Spring	Wildlife						
4	Boothiedugu	KUN006	Spring	Community, wildlife						
5	Orangebaavi	KUN007	Spring	Community, livestock, wildlife	Check dam					
6	Kovaalbaavi	KUN008	Spring	Livestock, wildlife						
7	Neribaavi	KUN009	Spring	Community, livestock, wildlife		Well				
8	Attaynaali	KUN010	Spring	Community, livestock, wildlife						

Note- Need to add a spring identified for pumping to the GLR.

5. Springs 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 August, 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
Koogai bavi-2	KUN036	1. To de-silt and clean GLRs, repair and replace existing pipelines, a separate water pit for wild-life.	Repair of GLR and pipelines = Rs 80,000 (including Rs 45,000 fo labour)	Done. Material cost borne by Keystone. Labour by Community.
		2. Protection of the spring source by planting shola saplings in spring-shed region covered with tree guards.	Nursery expenses =Rs 2,600 (including Rs 2,000 for labour)	Done. Saplings from Keystone nursery. Labour by community.
		3. Additional storage structure for houses that resides towards downstream of the village.	Sintex tank =Rs 5,500	Planned. Material to be cost borne by Keystone.
Orange baavi	KUN007	To de-silt and clean the spring-box	Labour =Rs 2000	Planned. Labour by Community.
Kooval bavi	KUN008	To deepen the source, and making a stone structure around it.	Labour =Rs 2000	Planned. Labour by Community.
Boothiedug	KUN006	To deepen the source, and making a stone structure around it.	Labour =Rs 2000	Planned. Labour by Community.

Discussion 1 : Oct, 2017
Source : Koogai bavi-2 (KUN036)
Intervention : To work on existing water supply and storage infrastructures from Koogai bavi-2 to the village.
Total expenditure : Rs. 65,000 approx.

Interventions	Reason (benefits)	Expenditure (Rs)
1. To repair, and fix pipeline from the source till GLR in the village, and also to bury them in ground. Thereby, to connect the source to GLR1 by hose-pipe.	Fixing the pipeline and burying it helps to reduce wildlife disturbances.	Repair and fix pipeline from source to GLR: Material cost =Rs 25,000 Labour (Rs.200 wage/day*15labours*15days) =Rs 45,000 TOTAL COST =Rs 60,000
2. To fix a covering for GRL-2 in the village.	A covering for GLR helps to prevent sunlight from entering the tank that leads to algae formation; or keeps the drinking water free from frogs, monkeys poop.	Fixing the lid_GLR-2: Tank dimensions = 6.28m*4.28m 3' GI sheet = Rs 1,125/roll*3 = Rs 3,375
3. To dig a water-hole/pit next to the source for wildlife.	A pit next to the spring avoids wildlife from disturbing the spring-box.	Digging a pit next to source =(Rs.200 wage/day*5labours*5days) =Rs 5,000
4. Planting of saplings like Koogai, Vaigai, Dhuppa, Jamun, and Fig (Ullathi, Peeyathi), Ichchi/vellachchi around the spring. Tree guards for each saplings using sticks and cement covers.	Earlier jamun and jack-fruit trees were cut at some point in the past. Planting of saplings around the source helps in restoration, and thereby increases spring discharge. Tree guard helps to prevent Kovakkarai cattle from eating-up these sapplings.	Atleast 5 saplings from each variety: Rs.20/saplings*30=Rs.600 Labour to plant saplings =(Rs.200 wage/day*10labours*1day) =Rs 2000 TOTAL COST =Rs 2,600
5. Additional storage structure for houses that resides towards downstream of the village.	An extra storage tank in middle of the village ensures less overflow of water from main GLR and some getting stored for following day's use.	Additional storage facility: 1000lt Sintex tank = Rs 5,500

Discussion 2	: Dec, 2017
Source	: Orange bavi (KUN007), Kovai bavi (KUN008), Boothiedugu (KUN006)
Intervention	: To de-silt the source, and make a permanent stone structure around wherever needed.
Total expenditure	: Rs. 6,000 approx. for labour contribution.

Interventions	Reason (benefits)	Expenditure (Rs)
To de-silt and clean the source, and make a permanent stone structure around wherever needed.	KUN007- To get more water discharge from the spring.	Labour cost to work in each source =(Rs.200 wage/day* 5labours*2days) =Rs 2000*3 sources =Rs 6,000
	KUN008- Wildlife would go to the source, and not to Orange bavi which is an alternative source for the community during summer.	TOTAL COST =Rs 6,000
	KUN006- It will be easier to fetch water for temple, and using it as an alternate source during summer.	

Additional discussions from community meetings in Dec, 2017 and Jan, 2018

- Sanitation _ People welcomed to idea to try, and revive their traditional toilet practice. They dig a 5-6feet pit to attend their nature's call, and cover it with dry leaves. Overtime, the feces turn into compost. People had also suggested having a temporary roof over the pit, or having these pits inside government built toilets. This practice is beneficial in many ways like it requires less use of water, it protects those water resources located below the region, helps to keep the area clean, and tidy for the children to play around, and also protects them from wildlife in the dark, and rainy season.
- Siva (present Pump-operator) and Vivekanandhan from the village to attend Volunteers' training programme to be held in December, 2017.
- Depending on the co-operation form Panchayat, plans to meet the labour cost from NREGA to work on KUN007, KUN008, nad KUN006. Tentative labour costs are mentioned in the report.
- To approach UNCS to work on Attanaalli (KUN010) and thereby connect the tapped water to GRL-1. The water could be shared with neighbouring villages as well.

7. Maintenance and Intervention

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

- Storing spring water in the village GLR and accessing water from the it than by-passing it and directly taking 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(s).
- In case of shortage of water, deciding on quota of water each family can take with a given timings.

Maintenance to ensure

- Removal of leaves/blocks from the pipeline coming from the spring box
- Cleaning of both GLR tanks 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

- None

9. Finances

- There is a savings group in the village.
- There is a pump-operators appointed by Panchayat for the villages, and he turns pipe valves and attend to any problems in the pipeline, and other water infrastructures. He is paid by Panchayat for his role. As his pay from the panchayat is insufficient compared to the involved, he also collects some money on a monthly basis from the village people.

Annexure

A1. Maps

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

A2. Photos from the field