

1. Village Profile

Village Name	Banglapadigai	Kokkode	Poongamokkai
Panchayat	Aracode	Aracode	Aracode
No. of households	40	20	5
Population	180	60	20
Community	Irula	Irula	Irula
Institutions in the village (if any)	Anganwadi, Primary school, Aadhimalai Production centre	None	None

2. Water supply and demand

Village Name	Banglapadigai		Kokkode		Poongamokkai	
	Monsoon	Summer	Monsoon	Summer	Monsoon	Summer
Average daily water demand of the household (Liters per day)	351	272	295	274	377	286
Average daily water demand of the village (Liters per day)	14,887	11,745	5,890	5,476	1,885	1,430
Average daily water supply in the village (Liters per day)	7,314	4,000	10,000	2,000	2,000	2,000
Average daily shortfall/surplus in water supply in the village (Liters per day)	Shortfall of 7,573	Shortfall of 7,745	Surplus of 4,110	Shortfall of 3,476	Surplus of 115	Surplus of 570

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)	235
Maximum storage capacity in a household (in liters)	200

3(b). Water Storage facilities in the village

Banglapadigai : Village Ground Level Reservoir, Sintex tanks- Village, Aadhimalai Production Centre

Kokkode : Ground Level reservoir

Poongamokkai : Ground Level reservoir

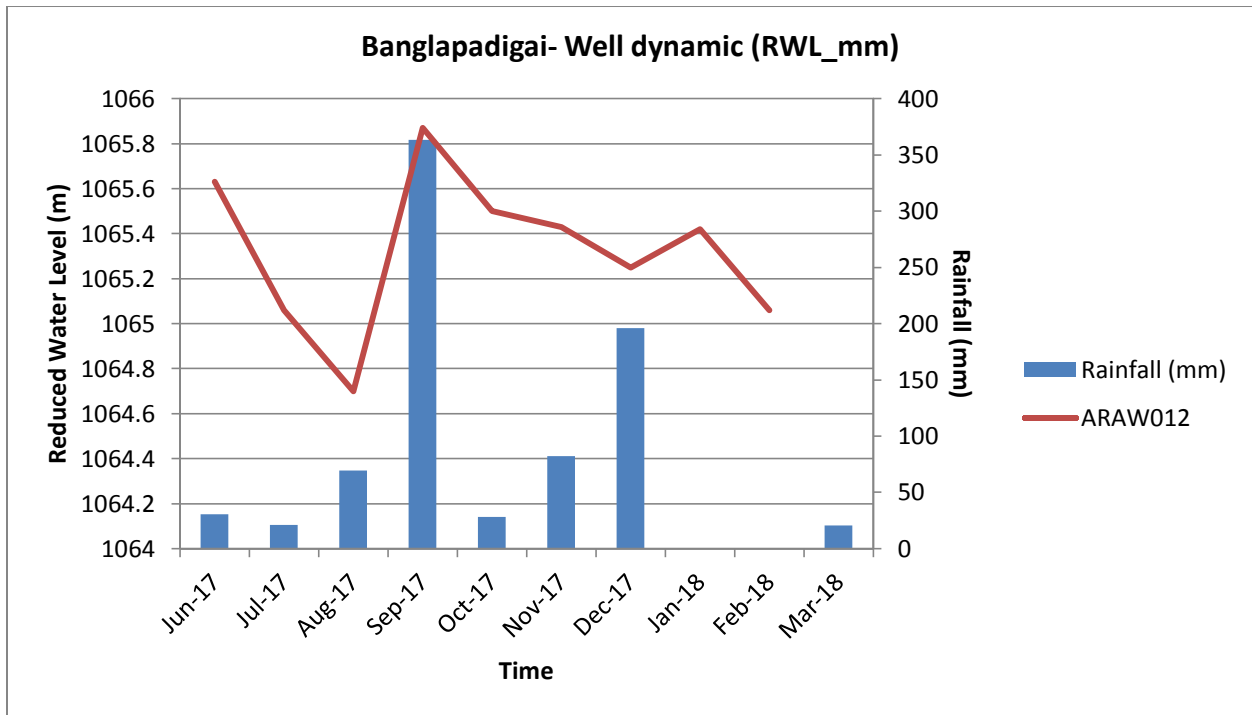
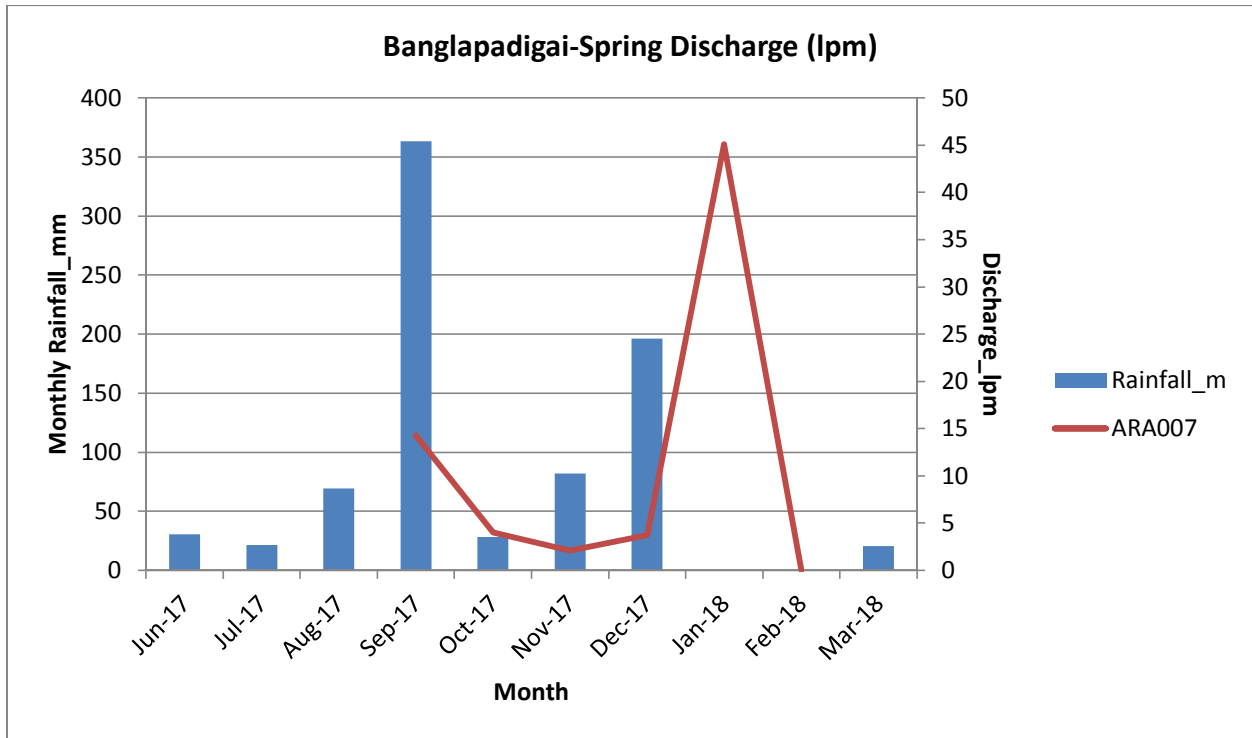
Bangalapadigai, Kokkode, Poongamokkai | 2017
Water Security Plan

4. Water Resources

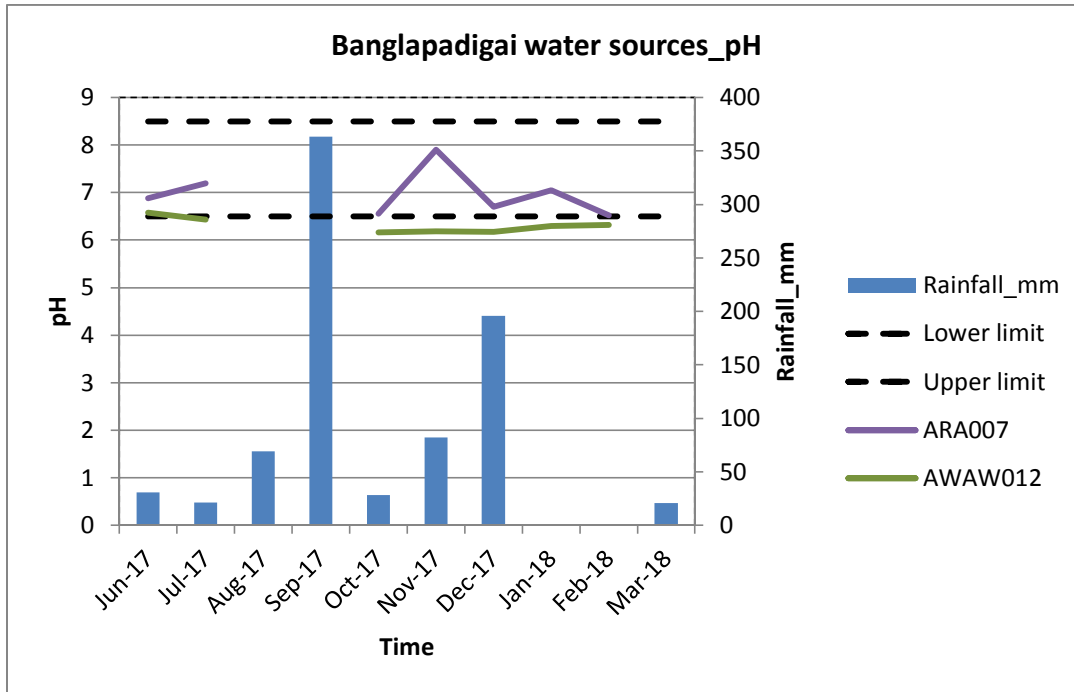
S No.	Name of the water resource	Source ID (if any)	Type of resource (Spring/Open well/wetland/Bore well/stream)	Dimensions of the water resource (Spring-length, width, depth; Well- diameter, total depth)	Seasonality	Springshed/catchment area (Acres)	Land ownership	Land-use pattern of the watershed area	Geology of the watershed area
1	Pulimavakere-1	ARA007	Spring	2m,2m,1m	Perennial	300	Community	Nursery, fallow land, Kokode estate	Depression spring
2	Sanakkapadigai	ARA013	Spring	1.3m,1.2m,0.5m	Perennial	300	Don't know		Depression spring
3	Pulimavakere-2	ARA045	Spring	1m,1m,1m	Perennial	300	Community	Nursery, fallow land, Kokode estate	Depression spring
4	Eshemaram bavi	ARAW006	Open-well	3m,2m	Perennial	50	Don't know		
5	Pulimavabavi	ARAW012	Open-well	1.6m,5.5m	Perennial	300	Panchayat		
6	Bangalapadikai	ARAW029	Bore-well	0.5m,200m	Perennial	100	Panchayat	Play ground	

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/Sc hool/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	Pulimavakere-1	ARA007	Spring	Community, agriculture, livestock, wildlife	Pipeline	Well	Open defecation	No	No	Will remain perennial
2	Sanakkapadigai	ARA013	Spring	Agriculture, livestock, wildlife	Spring-box	Well		No	No	
3	Pulimavakere-2	ARA045	Spring	Community, agriculture, livestock, wildlife	Spring-box	Well	Open defecation	No	No	
4	Eshemaram bavi	ARAW006	Open-well	Livestock, wildlife				No	No	
5	Pulimavabavi	ARAW012	Open-well	Community			Open defecation	No	No	
6	Bangalapadikai	ARAW029	Bore-well	Community				No	No	

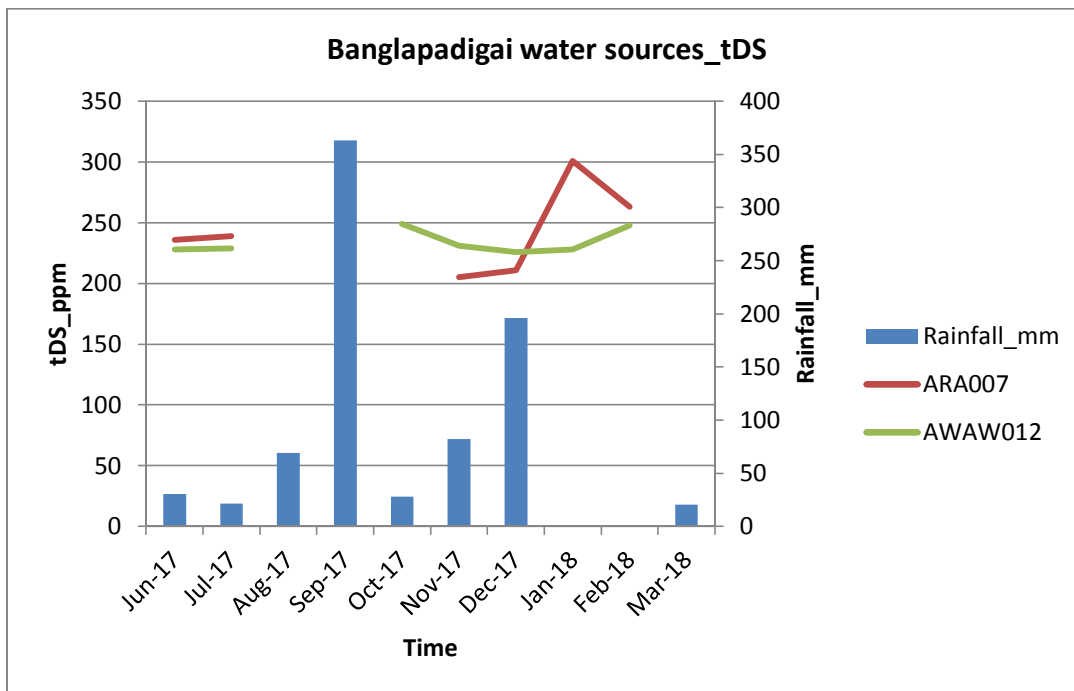
5a. Spring and Well Hydrographs



5b. Water Quality



Note:
Permissible limit
for pH is between
6.5 and 8.5



Note:
Permissible limit
for tDS is below
500ppm.

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 September, 2017 till March, 2018. These interventions were agreed by the villages, 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
Pulimavakera-1	ARA007	Repair of spring-box, and cleaning of check-dam	Rs 26,000	Done Material cost borne by Keystone. Labour by community.
Pulimabavi	ARAW012	Replacement of burnt electric wiring from the source to Sintex	Nil	Done Minimal cost borne by community
		Fix a covering for the open-well	3,500	Done Material cost borne by Keystone. Labour by community.
		Planting of shola saplings	1,500	Done Saplings cost borne by Keystone. Labour by community.
Bore-well Banglapadigai ground	ARAW029	Lay pipeline from ARAW029 to G.I pipeline near ARAW012 which connects to the village GLR.	8,500	Done Material cost borne by Keystone. Labour by community.
Dhonikkarai spring	ARA008	Repair pipeline from ARA008 till Kokkode village's GLR, and fixing a covering for the open-well.	5,500	Done Material cost borne by Keystone. Labour by community.

Discussion 1	: June, 2017
Source	: Pulimabavi (ARAW012)
Intervention	: To replace burnt electric wiring from the source to Sintex at village; fixing a covering for the open-well; planting of shola saplings in spring-shed region.
Total expenditure	: Rs 10,000

Interventions	Reason (benefits)	Expenditure (Rs)
1. Replacement of burnt electric wiring from the source to Sintex by the community.	Water from the open-well was not used by the community as a complaint in pipeline was left unattended for a couple of months.	Minimal cost borne by community
2. Fix a casing for the open-well.	To prevent leaves from falling, and entry of any kind of contamination.	Rs 3,500
3. Planting of saplings, and taking trenches in the spring-shed region. Also, gather people from the community to explain the implication of such interventions.	<p>There are some open spaces in the spring-shed region which belong to the community. Planting of :</p> <p>Coffee - 1000 nos. Silver oak - 1000 nos. Jamun - 100 nos. Baigai - 100 nos. Athimaram - 50 nos.</p> <p>Planting of these samplings helps to recharge the spring-shed area, and in increasing spring discharge.</p> <p><u>Note:</u> <i>Fallow lands which are infested with lantana could be brought back into farming with help of tie-ups with other programmes of Keystone like NABARD and/or PGS.</i></p>	<p>Cost of saplings: Shola (10*20)= Rs200 Vetiver (20*20)=Rs400 Vasambu (20*20)=Rs400 Korapullu (20*20)=Rs400 Baigae (2*35)=Rs70</p> <p>Restoration of fallow lands: Coffee (1000*10)=Rs10000 Silver oak (1000*10)=Rs10000 Jamun (100*20)=Rs2000 Baigai(100*35)=Rs3500 Athimaram(50*20)=Rs1000</p> <p>Labour: 10 HHs*2 per HH*Rs 250 per person =Rs 5,000</p>

Discussion 2	: June, 2017
Source	: Pulimavakera-1 (ARA007)
Intervention	: Cleared path to check dam for elephants to access water. Built a spring-box and fenced the region around the spring.
Total expenditure	: Rs 26,000

Interventions	Reason (benefits)	Expenditure (Rs)
Cleared path to check dam for elephants to access water. Built a spring-box and fenced the region around the spring. Also, planted few shola species near the fenced area.	The main water source (ARAW012) was not used by the community. Eventually, the spring became the only source of water for both the village people and wildlife.	Rs 26,000

Discussion 3	: Dec, 2017
Source	: Pulimabavi (ARAW012); Bore-well in play-ground (ARAW029)
Intervention	: To store water from ARAW012 and ARAW029 in the village GLR.
Total expenditure	: Rs 40,000

Interventions	Reason (benefits)	Expenditure (Rs)
De-silt, and repair of the existing but unused GLR tank in the village.	De-silt, and repair of the existing but unused GLR tank in the village.	Cement (Rs.405/50kg*5) Sand (Rs.85/tin*10) = Rs. 2,875
To lay pipeline from ARAW012 to the GLR.	To have a better water distribution system in the village.	Rs. 1445*20 G.I 1.5" pipes =Rs. 28,900
To lay pipeline from ARAW029 to G.I pipeline near ARAW012 this connects to the village GLR.	To use it as an alternative water source for the village.	Rs.85*100m H.D pipe =Rs.8,500

Discussion 4 : Feb, 2018
Source : Dhonikkarai spring (ARA008)
Intervention : To repair pipeline from the source till Kokkode village's GLR.
Total expenditure : Rs 4,000

Interventions	Reason (benefits)	Expenditure (Rs)
Repair pipeline from ARA008 till Kokkode village's GLR.	To reduce water leakage, and to improve water supply efficiency.	Cuplings and Unions = Rs 2000 approx
Fix a casing for the open-well.	To prevent leaves from falling, and entry of any kind of contamination.	Casing cost = Rs 7,000 Labour Rs 250/person*5 = Rs 1,250/day

General Discussions : June, 2017 - March, 2018
Village : Banglapadigai, Kokkode, Poongamokkai

This intervention is possible when there is adequate water to meet water demands of the village.

- Water connection to household toilets to reduce OD practices in and around the village.
Expense: Institutional mechanism
Status : Once water from major sources is stored in village GLR, the community could work on supplying water to household toilets.
- Fallow lands which are infested with lantana could be brought back into farming with help of tie-ups with NABARD and/or PGS programmes of Keystone.
Expense: Convergence and/or leverage with other institutions, panchayat, Forest Department.
Status : Planned.

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.
- Less dependence on springs for direct consumption of water. Thereby, more water to check-dam and lesser human wildlife conflict near the village's water sources.

Maintenance to ensure

- 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, wells and their respective water quality by a person from the respective village

8. Other agencies and village institutions

- Aadhimalai Production Centre has a Sintex tank
- Primary school in the village has its two Sintex tanks one for toilet, and the other kitchen.

9. Finances

- There are two savings group in the village run by women.
- 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