

Add maps

Check the layers needed??

Introduction

Dhobikana and Shiva cottage are two small urban settlements in the core area of the Kotagiri town. The two villages are divided by a stream that runs in between which is used by the dhobis (washermen community) for washing clothes. The water in the stream is highly polluted from the waste water from households around it and the detergents used for washing. The general hygiene of Dhobikana village is poor leading to health issues; this has been recorded during our surveys and through observations. There is a Panchayat connection for water supply in both the settlements; however the communities prefer fetching and using water from the spring for their drinking and cooking purposes. There are 2 springs in the village, one used by Dhobikana line people and other used by the Shiva cottage.

1. Village Profile

Village Name	Dhobikana	Shiva Cottage
Panchayat	Kotagiri Town Panchayat	Kotagiri Town Panchayat
No. of households	28	40
Population	100	150
Community	Tamil, Mixed	Tamil
Institutions in the village (if any)	None	
Private toilets	0	10
Community toilet	1 CT but not used	

2. Water supply and demand

Village Name	Dhobikana		Shiva Cottage	
Seasons	Monsoon	Summer (in liters)	Monsoon	Summer (in liters)
Average daily water demand of the village (Liters per day)	10000	14000	15000	17000

Average daily water supply in the village (Liters per day)	10000	How much??	How much??	How much??
Average daily <u>shortfall/surplus</u> in water supply in the village (Liters per day)				

3. Water Storage facilities

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

Village Name	Dhobikana	Shiva Cottage
Households harvesting rain water at home	No harvesting done at Dhobikana village.	Yes – 4 to 5 houses in Shiva cottage
Average water storage capacity in a household (in litres)	450 litres	450 litres
Maximum storage capacity in a household (in litres)	500	800 litres

(b). Water Storage facilities in the village

Village name	Dhobikana	Shiva Cottage
Storage facility in the village	No storage facility available at the village level. Communities store water at their household level in pots, vessels and 200 litre storage tanks.	One storage tank is set up in the village a year ago for storing water from the borewell. There are household level storages for storing water.
Total Storage Capacity of the village	Average water storage at household level combined 12600 litres	Average water storage at household level combined 18000 litres

4. Water Resources

S. No	Name of the village	Type of resource (Spring/Open well/ Bore well/stream)	Users of the water from this resource	How is the water delivered from the source? Describe	Which storage infrastructure is used?	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	Shiva Cottage - Dhobikana spring 1	Spring	Community	Head loads – fetching from the source. No supply system	No storage facility available	Stream runs close by. Chances of contamination during rainy season.	Yes. Leaks in the spring and storage tank.	Access and distance. Water quality issue during rainy season due to over flow of stream water.	Perennial
2	Dhobikana line - Dhobikana Spring 2	Spring	Community, Livestock.	Head loads – fetching from the source. No supply system	No storage facility available	Not much concern.	Yes	No issues.	Perennial. Reduction in flow during summer.
3	Dhobikana	Panchayat centralised delivery	Community	Stand posts set up in the village in each street	No storage facility available	Centralised supply – source not known	Yes. Muddy water and not preferred by the community	Not known	Supply of water is only once a week – recently there has been no supply for months
4	Shiva Cottage	Borewell	Community	Stand posts set up to supply water	GLR available – 30000 litres	The borewell is set up close to the community toilet, the stream water is highly polluted	Yes. Not preferred by the community for drinking purposes		

S No.	Name of the village	Type of resource (Spring/Open well/wetland/Bore well/stream)	Dimensions of the water resource in m (l*b*h)	Seasonality	Spring shed/catchment area (Acres)	Land ownership	Land-use pattern of the watershed area	Geology of the watershed area
1	Dhobikana Spring 1	Spring	.5*.5*.2	Perennial	5 acres	Private tea estate	Tea estate, roads and Petrol bunk	Highly weathered Saprolitic layer. Lateritic top soil layer.
2	Dhobikana Spring 2	Spring	1.5*.5*1.5	Perennial	3.5 acres	Private tea estate	Tea Estate. Road building on going in the catchment.	Highly weathered Saprolitic layer. Lateritic top soil layer.

5. Discussions and Interventions - Dhobikana

The Dhobikana colony is one among the neglected settlements in the Kotagiri town Panchayat for even the most basic infrastructure facilities. There are 28 houses in the colony who share a spring source for their drinking water needs. The spring is perennial and sustains the supply for the colony throughout the year. The water flow reduces during the summer seasons. Observations show health issues as a major concern in the village with at least 5 to 6 houses reporting handicapped people. There is another water hole next to the spring which is used by the community to wash their clothes, vessels and for people to wash/rinse their legs during funerals. This water is also being used by the livestock/dogs etc in the area regularly.

The villagers on various interactions mentioned the need for a storage facility to store the spring water in the village. However the storage will not make much difference in the village as the location chosen for the storage facility is just next to the spring box. Discussions over a long period of time to identify a suitable location to set up a storage tank from where centralized supply can be provided to the entire village finally materialized. One family accepted to provide their land for setting up a structure which can hold the weight of the water tank and also to use/connect their household electricity facility with the water pump line. A resolution was passed in the village that the storage infrastructure

will be built in a private household's site as there was no common land available, and the communities have agreed to pay Rs.50 from each household to the Individuals family for bearing the pumping expenses.

Sanitation and hygiene in the village is very poor. Out of the 28 houses, 7 houses had no private toilet, the community toilet built is not being used by the community. The 7 families in the colony practices open defecation in the land close by. Issues of safety, security and privacy of women and adolescent girls were highlighted in all of our engagement meetings with the community. The community toilet is currently not being used, the maintenance of the infrastructure and facility is a challenge. The communities are willing to build individual toilets over shared/community toilets

These following interventions were discussed at common village meetings facilitated by Community Resource Person from Keystone Foundation who regularly monitors the water resources. These interventions were agreed by the villages.

Name of the village	Source	Interventions	Expenditures (Rs)	Status
Dhobikana	Spring	Cleaning the area of invasive and waste surrounding the spring	5000/-	Negotiating with community – Community contribution
	Storage 1	A storage tank of 5000 litres to be installed close to the spring. Earth work and platform to set up the tank to is planned.	Sintex – 29000 Plumbing material – 2600 Plumbing labour - 14400	Work completed – Supported by Keystone foundation under the HCL grant
	Storage 2	A storage tank at a centralized location in the village for centralized supply of water.	Storage infrastructure set up labour – 69460 Sintex - 29355 Material - 48000 Electricity material - 11000	Work completed – Supported by Keystone foundation under the HCL grant

Discussions and Interventions - Shiva Cottage

Shiva cottage is another urban settlement falling under the Kotagiri town panchayat where water issues were identified. The entire settlement was once dependent on a spring which is on the banks of the stream. The women and men folks had to walk up and down the hill to access water from the spring. After many decades of this struggle the community were finally provided with a bore well and water supply to their village in the year 2018. However, still most families prefer fetching the spring water back to their households for their drinking and cooking purposes. The communities have highlighted that the borewell is constructed next to the Community toilet and also the highly polluted stream which runs nearby. There are chances that the borewell water can be contaminated from both the stream and toilet waste. The spring water has been their source of water for 4 to 5 decades and there is spring box which was built to store and use the water. The spring box has multiple leakages and doesn't store any water. The communities highlighted that the villagers have tried to fix the leakage in the tank many times and have been unsuccessful. The villagers suggested that the entire spring box be demolished and rebuilt with a new design to stop this recurring issue of leakage. The communities are willing to contribute both time and money to work along with Keystone to fix this issue.

Name of the village	Source	Interventions	Expenditures (Rs)	Status
Shiva Cottage	Spring	Cleaning the area of invasive and waste surrounding the spring	5000/-	Negotiating with community – Community contribution
	Spring	Re designing the spring box to arrest leakage and enable storage at the spring location	45000/-	Get quotation from Sathish

6. Maintenance and Intervention

- Each household in Dhobikana line will contribute Rs.50/- each per month towards pumping cost and savings to maintain the infrastructure set up.
- A savings bank account in the name of the village will be created for the community; the account will be maintained by the women's group headed by Thilagavathi.
- The ownership and responsibility of maintaining the water tank will be handed over to the community.
- In case of shortage of water, especially during summer seasons - quota of water for each family will be decided in the coming summer season.

- Shiva cottage will take charge of infrastructure maintenance of the spring box after rebuilding or fixing it.

7. Other agencies and village institutions

No institutions in both the village. Check Shiva Cottage

8. Finances

Check annexure for Bills of expenses made in the village during 2019-2020

Water quality assessment of water sources of Dhobikana Spring 1 and 2

Insert Spring Hydrograph – check for rainfall data??

Water quality results as on _____ - Ask Kannan to do one round of JAL TARA tests from all the WSP villages