**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 |  |

1. **Water supply and demand**

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| --- | --- | --- | --- | --- |
| 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 shortfall/surplus in water supply in the village (Liters per day) |  |  |  |  |

1. **Water Storage facilities**

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

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| --- | --- | --- |
| 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**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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.

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| --- | --- | --- | --- | --- |
| 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.

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| --- | --- | --- | --- | --- |
| 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