

Field trip report - 19/11/11

Shahpur Taluka, Thane district

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Shahpur taluka is one of the larger talukas in Thane district which faces severe drinking water stress in summer and pre-summer months and has a large number of tanker fed wadis. A field trip was planned on Saturday, 19th Nov to visit this taluka along with some engineers from the water supply department.

We started at 6:45am from IIT Main gate. Boarded the Kasara bound local from Thane at ~7:40AM. We arrived at Khardi station at 9AM. Two engineers (Vikas Jadhav – DE, and ??)from the Water Supply Department of Panchayat Samiti Shahpur picked us up from the station in their jeep. We stopped for chai at a local shop.

Our initial plan was to visit the Dhamni gram panchayat (GP) in Shahpur district. Kiruba had already been to the wadis in this GP and had submitted a report on his field visit. So our goal was to have some questions answered and explore some possible solutions for this area. However, the engineers had a different plan. They wanted us to visit Vihigaon GP and Vashala GP as they thought that these were the GPs which had the most severe problem. Kasara, Vashala and Dhakne, all within Shahpur taluka, have been tanker fed for 40 years. The water department had been unable to find a solution based on their current tools and requested CTARA to explore drinking water solutions for these areas. (they thought Dhamni problem was solvable in the short term). So we decided to visit Vihigaon and Vashala.

Taluka	GP	Village	Habitat	Total Pop	SC Pop	ST pop	# houses	# cattles
Shahapur	VIHIGAON	VIHIGAON	BAUDHWADI	134	44	90	23	24
Shahapur	VIHIGAON	VIHIGAON	CHINCHWADI	95	0	95	53	250
Shahapur	VIHIGAON	VIHIGAON	DARYACHEWADI	180	0	180	28	100
Shahapur	VIHIGAON	VIHIGAON	HIWALWADI	110	0	110	81	190
Shahapur	VIHIGAON	VIHIGAON	KATHODWADA	90	0	90	23	50
Shahapur	VIHIGAON	VIHIGAON	KATKARIWADI	78	0	78	20	30
Shahapur	VIHIGAON	VIHIGAON	NIRGOODWADI	98	0	98	95	285
Shahapur	VIHIGAON	VIHIGAON	RAJWADA	50	50	0	null	null
Shahapur	VIHIGAON	VIHIGAON	TELAMPADA	364	0	340	110	100
Shahapur	VIHIGAON	VIHIGAON	VIHIGAON	221	0	221	67	500

There is 1 well in Vihigaon gavthan (main Vihigaon) which also serves Kathodwadi and Katkariwadi (~200 homes based on the people there). This well dries up by Jan/Feb. There is a village water committee which calls tankers. There is a single water committee for all padas. 2km away from this location is the Vaitarna River, which is perennial. A piped scheme has not been feasible due to the cost per capita not fitting into norms (~1600 people).

There is an ongoing rehabilitation project right next to this well to relocate a wadi because the building of the Vaitarna dam will submerge the existing location of that wadi. It is expected that people from that wadi would move into this rehab housing within 2 months but their condition is that water must be made available to them. BMC has promised that it will provide a scheme to bring water to the rehab colony in 2-3 years. But until then a temporary plan needs to be in place to cover the rehab colony as well as Vihigaon.

We went to the sarpanch's house (Shri Tukaram Lakshman Wagh – 9158870314). He had gone to Delhi for sightseeing but coincidentally arrived in an auto just then. Other villagers too joined in for a discussion. Some points from our discussion

- GP covers 1722 people and 375 homes
- Rs 47 lakhs have been granted to the GP for a temporary scheme. The tentative plan for the scheme is to pump water from the Vaitarna river and dump the water in the well. Prof. Sohoni suggested that a good portion of the water will percolate if water was dumped into the well and hence a storage tank should be used instead.
- Tanker water is also dumped in this well
- There is a second well uphill from Vihigaon main village, closer to two tribal wadis – Nirgoonwadi and Dharyachiwadi. This well has water all 12 months but is in a poor condition. We went to see this well.
- A borewell was dug close to this well, which struck water but went bad. A second borewell with a handpump was made next to it. There was water coming out of the handpump but the pump lever was very tight and hard to operate
- The well was in a state of disrepair. There was a small spring flowing next to the well.



- The well has water all round the year but currently cattle use this water and so the water is not sufficient for the people and womenfolk have to go all the way to the river to fetch water.
- We walked upstream from the well towards a bandhara that was built close to the village school. However, it seemed that the bandhara was not deep enough because there was no water on the surface at that point. It appeared that water went through an underground channel and emerged on the surface closer to the well downstream. There were also cracks and points of leakage in the bandhara because of which it didn't work well.
- NREGA work is done in the village but they seem to work on other activities – perhaps fixing the bandhara could be done through NREGA labour?
- The sarpanch said that the uphill well water is only sufficient for the two uphill wadis and not for the other wadis. Prof. Sohoni suggested that people should be asked to stop taking their cattle to this well and perhaps then there would be sufficient water available. But the sarpanch thought that the people would not follow this instruction.
- Prof. Sohoni suggested that the uphill well seemed to be very delicately placed and it would not be advisable to deepen it or do any blasting there. He, however, suggested that that access to the well should be improved and that it could be broadened (perhaps an activity under NREGA?)
- He did not recommend using this well as a source for a single village drinking water scheme.



We had chai and snacks at the sarpanch's house and then left for Vashala (bk).

We reached Vashale and asked for the sarpanch or upsarpanch. They were both away so we were taken by (name/number?) , who was the upsarpanch's father to his house.

Taluka	Grampanchyat	Village	Habitat	Total Population	SC Population	ST Population	Households	Cattles
Shahapur	VASHALA (BK)	VASHALA BK	KOLIPADA	150	0	0	39	0
Shahapur	VASHALA (BK)	VASHALA BK	RAICHEWADI	75	0	0	19	0
Shahapur	VASHALA (BK)	VASHALA BK	TOKARKHAND	260	0	503	195	260
Shahapur	VASHALA (BK)	VASHALA BK	UMBERWADI	50	0	0	13	200
Shahapur	VASHALA (BK)	VASHALA BK	WASHALA (BK)	382	71	157	99	215
Shahapur	VASHALA (BK)	VASHALA KH	WASHALA (KH)	275	23	221	33	0

Vashala (budruk) has about 150 homes. There is a river ½ km away where women go to wash clothes. This river is expected to dry in a month (by Dec/Jan) after which they will have to go ~3km away to Bhatsa river. There are some washing wells and one separate well that is used for drinking water (about .5 km away). There is water in this well till about holi.

Tokarkhand is one habitation which does not get tankers. It has a bandhara that was built 10 years ago which has been successful. We went to see this bandhara and the reservoir.



- There is water in this reservoir all 12 months however this water is not fit for drinking because it is made dirty by improper use (clothes washing etc).
- There is a well downstream from this bandhara which has water till about May-Jun.
- A second bandhara was built downstream from this well, but it turned out to be a failure. We could spot cracks in the wall of the bandhara and it is possible that it was not deep enough.
- On our way back we stopped at the Vashala drinking water well (photo?).



Next steps:

- Explore the feasibility of building a bandhara in Vashala. Need to study topo sheets and revisit the site. This can be a good TDSL 491 design project if there are some students interested in it next sem
- Offer TDSL 390 for students to visit other GPs within Shahpur/Jawar/Mokhada etc and prepare reports to supplement Kiruba's work on the tanker fed villages in Thane district