



Title: Community Soak Pit (Vertical Filter) -Rejuvenating Local ecology by replenishing Ground Water

District : Erode; Block : Anthiyur

Overview of the Project:

Introduction to work

Provision for proper and safe disposal of grey water is not available in rural areas. Presently the grey water from households are running into open drains and disposed either onto open ground or into water bodies which result in contamination of surface water and also prone for mosquitoes



Erode District - Anthiyur Block - Brammadesam panchayat
MGNREGS 2018 -19
Community Soak Pit - Vertical Estimate Amount - 1.16Lakhs

breeding. Now there is a need to tackle the liquid waste management since there is no proper disposal of liquid grey water in rural areas. if it is not managed properly, it flows indiscriminately through habitations and becomes a series health hazard & provides a breeding ground for disease spreading insect vectors like mosquitoes.

In MGNREGA rural sanitation works under Rural infrastructure category wherein water harvesting, liquid waste management works may be taken, accordingly works like construction of Vertical Soak Pit, village drains for proper disposal of grey water was implemented.

The water harvesting could be implemented under MGNREGS. The water harvesting, liquid waste management technologies should be environmental friendly, low cost, affordable and manageable at village level.

A soak pit, also known as a soak away or leach pit, is a covered, porous-walled chamber that allows water to slowly soak into the ground. Pre-settled grey water from a collection and storage is discharged to the underground chamber from which it infiltrates into the surrounding soil.

A collected storm water or grey water at soak pits can offer a cost-efficient opportunity and a relatively safe way of discharging it to the environment and therewith recharging groundwater.

Need of Work

In Erode District, Anthiyur Block, Brammadesam Panchayat, The liquid waste water collected from the 75 households around the 4 streets namely West street, Bajani temple street,



Perumal temple street & Jallykulli street is stagnated at the low lying area which is located at the west end of the hamlet.

This stagnated liquid waste water caused a lot of difficulties such as mosquito breeding, creation of slime around the area and unwanted bad odour and that problem exists over a decade in the habitation which created a big bottleneck to the nearby households.

Challenges

At the time of proposing the Vertical Soak Pit to dispose the liquid waste water most of the people around that area reluctant that, if the waste water poured into the ground, the existing ground water will be polluted and contaminated. All that time, efforts were taken to convince the people with brief explanation about the water contamination and then they believed that this type of work will not lead to the water contamination.

District/ Block/ Gram Panchayat	Erode District/ Anthiyur Block/ Brammadesam Panchayat
Cost of the Project & FY	Rs 1.16 Lakhs/ FY 2018-19

Implementation Process:

The work was implemented under MGNREGS 2018-19, providing 88 days of unskilled manual work to the registered people under the MGNREGA and by providing suitable construction materials required as per specifications which were collected from the nearby areas.

The filter media was constructed as per following procedure.

- Soak pit of size 5.00 m X 5.00 m X 2.25 m was excavated.
- An inspection chamber of size 1.45 m X 1.45 m X 0.60 m was excavated.
- At the bottom of soak pit, 225 mm size metal was filled to a depth of 0.45 m.
- Then, over the 225 mm metal, 40 mm size metal was filled to a depth of 1.05 m, and also a cement tub of 0.90 m dia was fixed at a height of 1.20 m from the top.

- Then, over the 40 mm metal, 20 mm size metal was filled to a depth of 0.75 m.
- Then, inside of the cement tub, 40 mm size metal was filled to a depth of 0.30 m.
- Then, 20 mm size metal was filled over the 40 mm metal to a depth of 0.30 m.
- Then, Red Gravel was filled over the 20 mm metal to a depth of 0.30 m.
- The inspection chamber was laid with C.C. 1:4:8 with 40 mm metal at the bottom for base concrete.
- Then inspection chamber was constructed in Brick work with a inner size of 1.00 m X 1.00 m to a height of 0.60 m. and also a PVC pipe of 180 mm dia was fitted from the inspection chamber to soak pit.
- And also, the drain outlet was connected with the inspection chamber in addition gratings were provided to screen the floating materials.

Impact:

- At present, there is no symptoms of contaminated and polluted waste water stagnation at the specified low lying area and now it is clean and a odourless gentle circumstances available in the surroundings.
- The collected grey water was filtered and recharged into ground and also the existing ground water table raised comparing with the previous conditions.

Voice from the Field:



"Being a Low-lying area, prolonged stagnation of Grey water from houses, led to contamination of ground water in the locality leading to frequent cases of fever and diarrhoea. Now, by the construction of this Soak pit, not only the effective management of Grey water has been made possible, but also, Recharge of Ground water has also been achieved."

- Residents