

The main source of water to the slum is supplied from bore wells through stand posts by the city municipal council. As per the assessment results, it is evident that out of 161 HHs only 18 HHs have individual toilet facilities and no communal toilet facility exists in the vicinity of the slum, which implies that approximately 89% of the total slum HHs resort to open defecation in the open fields nearby. Other issues related to water supply identified were:

- Water supply existed for one hour every alternate days via 77 stand posts and posed a deficit to sustain demand.
- Network of open, temporary sewage and storm water drains poses a very serious health problem. This was the main cause of spread of various water related diseases in area
- Open dumping of household waste was rampant and augmented health related problems
- Waste water from the open and closed storm water drain was discharged on to open fields downstream, which had become breeding grounds for mosquitoes and increased health risks.

Social Mobilization Towards a Cleaner Environment

Based on priorities discussed during focus group discussions with the community, including meetings with the City Sanitation Task Force team (stakeholder team) and municipal officials, the major intended outcomes of the ACCESSanitation project at the local level were set out in two folds; a) generating awareness in the local community on safe and hygienic sanitation behavior and b) successfully introducing sustainable sanitation facility to the community while also successfully showcasing community ownership of the infrastructure.

Subsequent interactions with the community and key stakeholder groups then focused on improving these identified issues via;

Awareness generation: A series of focus group and community level informal discussions led to the identification of key issues and concerns related to sanitation and inadequate facilities. Community interactions and subsequent discussions resulted in the community identifying solutions to these issues. Key messages that were conveyed to the community during these meetings directly addressed these issues and were targeted at women and children who are primarily vulnerable to impacts of inadequate sanitation. These discussions with the community was valuable as community felt more involved and thus also helped raise awareness of the issues related to health connected with inadequate sanitation in the vicinity.

Identification of a pilot project: The inadequacies of sanitation facility in the slum had resulted in rampant open defecation. In every discussion with the community, it was highlighted that it is important to primarily address the issue of open defecation by providing sanitation facilities. They were of the opinion that change in undesirable sanitation behavior is only possible if adequate and appropriate infrastructure was provided. The municipality was keen on piloting a decentralized waste water treatment systems as a viable alternative to underground drainage systems, which may not have been appropriate to construct considering the lack of space due to the narrow slum roads.

Based on these priorities, and in consultation with the community, the CSTF team and municipal officials, it was decided to construct a community toilet with an on-site treatment plant” as the pilot project

With considerable support from the local politicians, Self Help Groups and the larger community, Hosakote City Municipal Council implemented the pilot project with support from ICLEI SA and Ecosan Services Foundation. Based on criteria stipulated in the procurement tender, a local contractor was awarded the assignment of constructing the pilot project. Additional financial support for construction of the pilot project was extended by the Hosakote City Municipal Council as co-funding for the Europe Aid support.

The installation of a 9 seat toilet block with fully functional 6m³ decentralized waste water treatment system (DeWAT system) involved 3 main phases; Pre Construction, Construction and Post Construction.

1. **Pre construction:** The preconstruction phase, besides focusing on the engineering plans, site visits and consultations with the community, also included identification of land for construction and securing approvals for implementation from the Municipal Council.

Legal Sanctions and Design: The site for the pilot project implementation was identified in consensus with the community and approved legally by the Municipal Council's Chief Officer. The system was designed by local partners in close consultation with the city engineers as well as the local community.

Toilet Block Design: The toilet block is designed with separate entrances for men and women. The toilet block for men is provided with 4 water closets (3 Indian and 1 Western for physically handicapped and elder people), 2 urinals and 2 washbasins. The toilet block for women is provided with 5 water closets (4 Indian and 1 Western for physically handicapped and elder people) and 2 wash basins. The waste water from the toilets is treated in the DeWAT system provided at the rear of the toilet block.

2. **Project Construction:** The toilet block and DeWATS was constructed on "Government Karab Land" i.e., official declared non-agricultural waste land. The size of the land demarcated for the construction of the pilot project is 2000 sft (40' x 50'). The construction was in accordance with design parameter and material specifications, with minor alterations as per site conditions and in consultation with design engineers.
3. **Post Construction:** Along with the construction of the facility, the community and the municipal council, with support from local partners, derived a community management plan. This plan laid down the operations and maintenance arrangements that were shared amongst the community and the municipal council. The municipal Council undertook the responsibility of operating and maintaining the facilities through a trained caretaker from the community. The caretaker is responsible for operations and maintaining general cleanliness of the facility. The main responsibilities of the caretaker include informing users about procedures and monthly fee, produce family monthly passes, registering the families, keeping an accounting system, collect money from users, hire and manage cleaners/sweepers, buy cleaning products and inform the Municipal Council in case of any repairs or maintenance is needed. The ward sanitary inspector is further responsible to monitor and report to the Chief Officer on a monthly basis.

Results

Provision of the toilet and DEWAT system has created a cleaner environment in the slum. The area which previously was an open unmanaged defecation spot, because of which the health of the community was affected, is no longer being used for open defecation.

A minimum of 450 people from the community are served by the sanitation facilities. The awareness raised through this project also encourages safer and cleaner sanitation habits within the community.

The inclusion of an enclosed DeWAT system has diminished the risk of open breeding ground for mosquitoes. The DeWAT system will bring down the pollution levels of the discharged wastewater and will further reduce the residual discharges in the nearby vicinity.

The pilot project implementation in Hosakote has also resulted in building the technical capacity of officials in City Municipal Council, who are now trained in concepts of sustainable sanitation and planning and executing decentralized waste water management systems.

This project has also uniquely showcased a successful model of community involvement and ownership; this project will be maintained through a trained caretaker by Hosakote City Municipal Council, who hold the ultimate responsibility of maintaining the DeWATS and the community toilet facilities but are accountable to the community.



Steps towards decentralized wastewater treatment

Sustainability of the initiative

The initiative has been implemented with a strong focus on sustainable improvements for Goutham Colony as a whole and the surrounding environment. The benefits have included the following:

Health and hygiene: The toilet and DEWAT System will create a cleaner environment in Goutham Colony. The area near the fields which was an open defecation spot and breeding ground for diseases will now not be used anymore.

Environment and natural resources: In the absence of proper toilets and given that Hosakote is an expanding slum area, there was an urgent need for toilet facilities and a corresponding waste water treatment system. The pilot project has resulted in protecting and preserving open areas in the vicinity of the slum and also prevents pollution of open drains.

Technology and operation: The toilet construction is simple in design and can be easily replicated. It has been built considering elements required facilitating easy access to physically challenged. The DeWAT System is easy to construct and requires low maintenance. DEWAT system is based on the principle of low maintenance since the system works without significant energy inputs and provides state-of-the art technology at low cost. Moreover, the engineering aspects like volume; length etc. can be tailored as per the community requirements.

Financial and economic issues: Operation and maintenance of the built facilities were also entrusted to the community. User charges collected by the community will cover costs of maintaining the system.

Socio-cultural and institutional aspects: The toilet and DEWAT were designed in consultation with the community. Discussions were held with the community on site selection and construction aspects. Community was involved in the overall construction, supervision, community coordination. A community managed operation and maintenance plan was prepared and is being implemented to ensure effective system functioning.

Lessons learned

The Goutham Colony Project was successful mainly because of the inclusion of the community and City Municipal Council. The City Municipal Council was convinced and supportive of a relatively new concept of decentralised sanitation system. The important lessons learnt through this programme include:

- Involving the community from the beginning of the project helps to generate ownership of the project and leads to better functioning of systems.
- Demand creation via awareness generation regarding sanitation and health is needed to encourage residents in slums to avoid open defecation and use toilets.
- Although technological support is needed and could be provided externally, it is important to involve the community in day to day maintenance and operation for sustained impacts of the project.
- A holistic approach to environment and sanitation by linking it with livelihoods of the people has helped in the successful maintenance of the system

Replication

The community in Goutham Colony is convinced that it can operate and maintain the facilities with minimal external support from the municipality. This has led to recognition of its applicability in other areas of Hosakote. The Chief Officer, Hosakote City Municipal Council, has shown interest to take up such projects at other necessary places in Hosakote city from their municipal funds.

Budget and finances

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The pilot project was implemented by ICLEI – South Asia in partnership with Ecosan Services Foundation. Europe Aid of the European Commission has partly financed the design and construction of the facility by granting an amount of 7,500 Euros. Hosakote City Municipal Council has co-funded the project by providing a grant of INR. 7, 87,500/- (€ 9,314.56).

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