

## Pilot project for sanitation improvement, Z-block, Aya Nagar

The pilot project is a prototypical model for evolving and establishing a sanitation management program in phase V, Z-block, Aya Nagar. The project is designed to demonstrate a decentralised sewage treatment method which will conserve water and can be maintained by the residents of the neighbourhood.

The work commenced in November 2015 with a demographic and physical survey of the neighbourhood. The internal layout of the houses was mapped and an architectural model was made of the whole neighbourhood. A team of experts in urban planning, public health engineering, community engagement and digester fabrication formed the advisory panel for the project.

Following several discussions with the community, the experts devised a scheme appropriate to the context, which involves a system of biologically charged digesters, prefabricated and inserted below ground in the roads/paths, to treat the sullage and waste flowing from the houses. The treated grey water flowing out of the digesters is piped (sub-surface) to a nearby reservoir which also collects rainwater. Before entering the storage reservoir the grey water receives secondary treatment by passing through a constructed wetland for root zone treatment to ensure reasonable quality of water for re-use. This ensures a closed water cycle to conserve this valuable resource.

Community meetings were held to raise awareness about the treatment system and its maintenance. The entire process was documented in an audio visual format to be made into a documentary film for sharing this information with other citizens. It is expected that the installed system will free the residents from their present reliance on storage of faecal matter stored in a sump under the house to be periodically pumped out by tanker vehicles

The research and design phase extended upto April 2017, and work started on the ground in the month of May 2017. Presently, 13 out of 21 biodigesters have been installed. This will be followed by resurfacing of roads and installation of rainwater harvesting system.



Before construction



Present scenario



Digging a pit for installation



Floor finish



Wall construction



Installation of biogester



Casting of slab



Construction of manholes and final plastering work

