

# CLUSTER SEPTIC TANK

SAVDA GHEVRA

## Cluster Septic Tank Offers a Household, Equitable and Sustainable Sanitation Solution



Savda Ghevra is the largest planned resettlement colony in Delhi, developed by the Delhi Urban Shelter Improvement Board for rehousing evicted slum dwellers. However, its master plan did not provide for linkages to public sanitation infrastructure and so, despite land tenure, people could not make toilets in their houses. The choice was to use the community toilets which often shut down, dirty, broken or unusable and people had to defecate in the open under threat of sexual (for women and children) and physical assault.

Some families added rebuilt houses with home toilets and underground septic tanks (mostly lined pits), but soon realized that these were dangerous. Besides hollowing the land beneath risking a sinking, these poorly constructed tanks were leaching into ground water and up the house walls.

Centre for Urban and Regional Excellence (CURE), responding to this need articulated by women, conceptualized a design that was capable of being built, managed, and maintained by them. The Cluster Septic Tank (CST) is a low cost, de-engineered solution installed in partnership with people, offering new template for in-house sanitation services in unplanned urban fringes; bringing sanitation to even the poorest of households.

The Cluster Septic Tank system has been planned and constructed through people's participation. It has nurtured community leadership that has taken ownership for overseeing construction and readied an O&M plan. Informally chosen street leaders, one from each street, represent their neighborhoods, and volunteered to engage with CURE and to be the community interface.

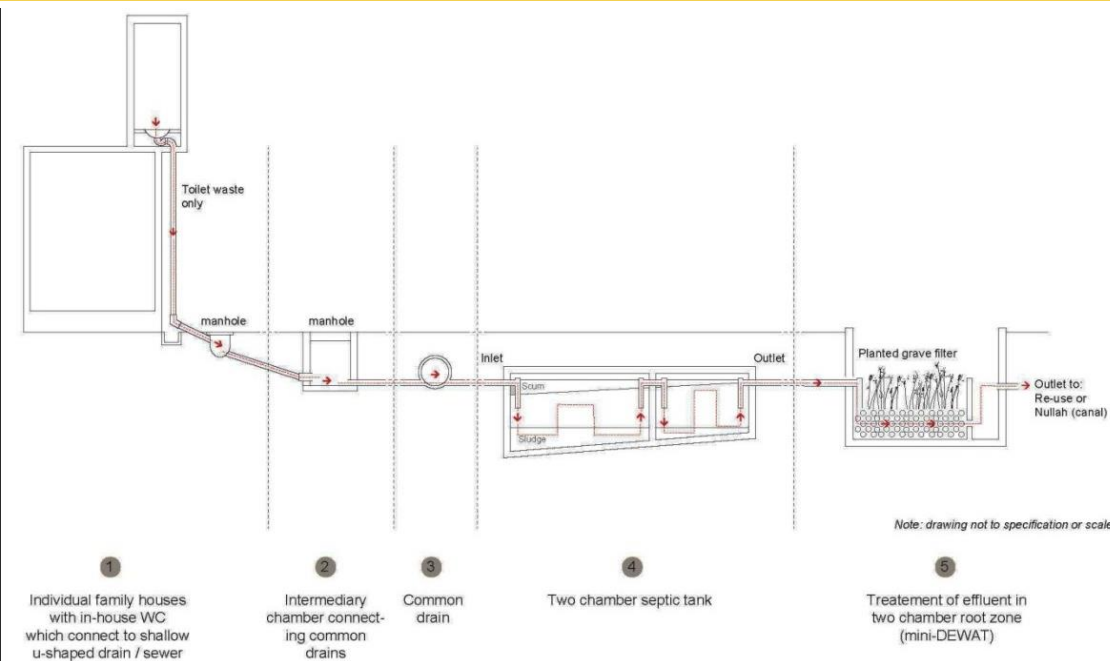


The Cluster Septic Tank system has three parts:

**In house Toilets:** People shall build their own toilets and connect through a manhole to a simplified sewer system that will convey the sewage to the CST. Existing toilets are being retrofitted to capitalize on people's investments and save costs. New toilets are designed to available home spaces, structural quality of the house and affordability. A community credit fund is available to the poorest households to borrow money at low/no interest rates to pay the upfront costs.

**The Cluster Septic Tank:** This is a large septic tank with baffle walls to treat the sludge from home toilets. Sludge from 322 households is carried through a simple (shallow) sewer line to the CST. The CST has a one-year retention capacity after which it will need to be cleaned out.

**Decentralized Wastewater Treatment System (DEWATS):** The overflows from the CST flow into the DEWATS that further treats the effluent to usable levels. The treated water is stored in tanks and is available for reuse. For future, it can be piped to home for flushing by installing pipelines. For now, the water is available for irrigation and/or dilutes in the storm water drain in the neighborhood.



**Households connecting into the system pay a small monthly fee, to finance the annual cleaning expenses, engendering local responsibility and accountability. The sludge makes good quality manure, which the community plans to sell to make money, which will revolve into the Community Credit Fund for more toilets.**

The immediate impacts of the CST have been dignity. It is also triggering housing upgrades, as the poor invest in making *kucha* homes, pucca. The long-term gains will be in people's health and productivity and poverty-free living.