Technical Option Brought Solution for Safe Waste Water Management in Urban Public Toilet and Improved Ground Water Table

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Abstract: Background and Context: Population growth and rapid urbanization resulted nearly 2 Lacs migrants along with families moving to Delhi each year in search of jobs. Most of these poor migrant families end up living in slums and constitute an estimated population of 1.87 lacs every year. Further, more than half (52 per cent) of Delhi's population resides in places such as unauthorized and resettled colonies. Slum population is fully dependent on public toilet to defecate. In Public toilets, manholes either connected with Sewer line or septic tank. Septic tank connected public toilet faces major challenges to dispose of waste water. They have to dispose of waste water in outside open drain and waste water struck out side of public toilet complex and near to the slum area. As a result, outbreak diseases such as Malaria, Dengue and Chikungunya in slum area due to stagnated waste water. Intervention and Innovation took place by Save the Children in 21 Public Toilet Complexes of South Delhi and North Delhi. These public toilet complexes were facing same waste water disposal problem. They were disposing of minimum 1800 liters waste water every day in open drain. Which caused stagnated water-borne diseases among the nearest community. Construction of Soak Well: Construction of soak well in urban context was an innovative approach to minimizing the problem of waste water management and increased water table of existing borewell in toilet complex. This technique made solution in Ground water recharging system, and additional water was utilized in vegetable gardening within the complex premises. Soak well had constructed with multiple filter media with inlet and safeguarding bed on surrounding surface. After construction, soak well started exhausting 2000 liters of waste water to raise ground water level through different filter media. Finally, we brought a change in the communities by constructing soak well and with zero maintenance system. These Public Toilet Complexes were empowered by safe disposing waste water mechanism and reduced stagnated water-borne diseases.

Keywords: diseases, ground water recharging system, soak well, toilet complex, waste water

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