

Assessment of Sustainable Sanitation Systems: Urban Slums

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Abstract : Having an appropriate plan of sanitation systems is one of the critical issues for global urban slums. Poor sanitation systems in urban slums outcomes an enhanced vulnerability of severe diseases, low hygiene and environmental risks within our environment. Mentioning human excreta being one of the most highly risked pollutants among all the other major contributors of sanitation pollutants is increasing public health risks and amounts of pollution loads within the slum environment. Higher population growth, urge of urbanization and illegal status of urban slums makes it impossible to increase the level of performance of sanitation systems in urban slums. According to Sustainable Sanitation Alliance, design parameters for sanitation systems were set up to ensure sustainable environment. This paper reviews the characteristics of human excreta at present, treatment technologies, and procedures of processes that can be adopted feasibly in the urban slums. Keeping these factors as our significant concern of study, assessment of sustainable sanitation systems is done using sanitation chain concept in accordance to the pre-determined sustainability indicators and criteria which reflect the potential and feasible application of waterless sanitation systems bringing sustainable sanitation systems in urban slums.

Keywords : human excreta, sanitation chain, sustainable sanitation systems, urban slums

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