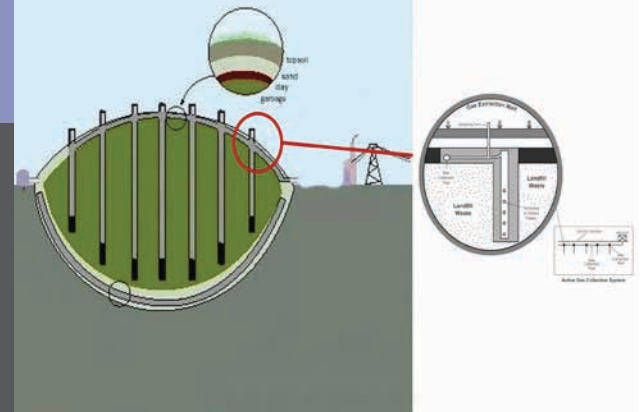


## Legacy / Old Dump Waste Management (LDWM)



**Problem Statement:** Disposable plastics, household and degradable waste, and discarded electronics are dumped in the large landfills and lie there in the open dumpsites for many years, creating what is called 'Legacy waste'. With the increasing population in cities, more waste is being produced, and more space is required for dumping these wastes. Scientific solutions to clearing Legacy waste is a problem that needs to be addressed and is the need-of-the-hour. A research team at IIT Bombay has developed a technology for provisions for dumpsite slope stabilisation, biogas and leachate capture, surface drainage and final cover.

**Uniqueness of the Solution:** The team introduced a novel method called the Dumpsite Rehabilitation system. The landfills are processed and utilised with the provisions for slope stabilisation, landfill biogas management and leachate capture, surface drainage and final cover. The garbage from the landfills is

processed by covering waste with layers of clay and sand and the topmost soil layer. The system is designed such that gas collection pipes are connected to garbage to collect biogas and peripheral pipelines for leachate collection. This LDWM system can be utilised by municipalities to deal with old dumpsites.

**Current Status of Technology:** The proposed technique is in the TRL 9 stage. The Legacy Waste Management System (LWMS) has been successfully implemented by Mira Bhayandar Municipal Corporation (MBMC) in 2016, Municipal Corporation of Greater Mumbai (MCGM) in 2018 and Lonavala Municipal Corporation (LMC) in 2018.

**Societal Impact:** These landfills or open dumpsites are a nuisance due to foul odour, stray animals and health hazards for the people residing nearby dumping sites. Implementation of the Legacy Waste Management System (LWMS) can help reduce the problems faced by the

people due to open dumpsites.

**Patent(s):** Nil

**Relevant Industries:** Cities, Towns, Urban Local Bodies, Municipalities.

**Faculty:** Prof. Anil Kumar Dikshit, Environmental Science & Engineering.