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Implementation problems in waste management through an anaerobic digestion process: a case study at the Open University of Sri Lanka

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Despite rising costs in meeting domestic energy needs, especially for cooking, the uptake of renewable energies, such as biogas, solar and wind power is remarkably slow. This paper presents problems identified in organic solid waste management through an anaerobic digestion process. A biogas plant of 8 m^3 was constructed and put to use with the participation of certain stakeholders of the institution in order to identify practical difficulties, evaluate the general awareness of biogas technology and to demonstrate the feasibility of anaerobic digestion as a method of institutional waste management, supplying energy and manure production for an organic agricultural plot. The study commenced with the assessment of awareness of biogas technology, followed by a participatory program in construction and commissioning. The project successfully addressed the misconceptions about the high costs involved, usage of complex technology, difficulties in maintenance and gas purity. The project also created interest among participants to construct their own plants. Lack of knowledge about the multi-facet benefits, misconceptions related to the level of technology involved and maintenance were identified as some of the main obstacles.