Ethos: A Translation of Bio-digestion of Human Waste across Continents

Anirban Mandal
Advisor: Candida Crasto

Introduction

Biodigestion, an anaerobic process, can be used for eco-friendly disposal of human and animal waste. Some of the benefits are:
- Removal of odor
- Safe disposal of waste
- Low cost
- Easy to construct/maintain
- Methane generation
- High quality fertilizer

Human waste is a very potent vector for viral and bacterial disease. About 20% of all such diseases (like hepatitis, hookworm, cholera, filariasis, etc., to name a few) is water related.

Objective

Major objectives of this work are to:
(a) Evaluate various technologies for best results in rural Nicaragua.
(b) Selection and fabrication of an appropriate technology for individual household.
(c) Study the feasibility of introducing a community based toilet system.
(d) Use the results from the appropriate technology for education purposes globally.

Methodology (Factors)

Bio-digesters are the fermentation containers for the human waste and are made from various affordable materials. The factors affecting the rate of biodigestion are:
- Surface Area
- pH
- High Temperature
- High Pressure
- Type of Waste
- Shape of the Chamber

Result Expected

Anaerobic digestion can be used for waste management, especially human waste in the developing countries.

Effluent becomes pathogen-free and reusable which are eco-friendly and economical.

Emitted gas (methane) may be utilized as energy source for household purposes.

Bibliography


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