



**MANAGEMENT IN WASTE WATER TREATMENT PLANTS AND SOLID WASTE WITH  
SPECIAL REFERENCE TO ENVIRONMENTAL PROTECTION.**

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**Abstract:**

Energy management in solid waste and waste water treatment plants includes methane production and utilization in the form of Bio-gas from anaerobic digestion process.

**Key words :** methane, Biogas, waste water plant

**Introduction:** many African countries like Uganda, bio-gas is being viewed as an environmentally attractive alternative fuel as fossil fuel like coal etc are depleting fastly. Due to more urbanization and industrialization, environmental pollution is increasing day by day. The disposal, of sewage water, city waste, city waste, municipal waste water is becoming a major problem, [1]

The world is fastly heading towards an energy crisis. Energy is an important input for industrial and economic developments and improving the quality of life. The accumulation of huge amount of cattle waste, manure, livestock slurries, solid waste are produced daily, needs to be treated and disposed of

without polluting the environment. The disposal of solid waste and recycling make an important contribution for an economic and social sustainable economy all over the world [2]

Biomass alone currently meets 57% of the national energy demand in many countries [3][4].

**Materials and methods:** organic substance requires oxidizing agent to completely oxidize it . this is called chemical oxygen demand (unit is mg/l) TS is % solids and drytons from operating data. So chemical oxygen Demand (COD) [5]

**CH<sub>4</sub> production :** In order to convert the COD equivalent to CH<sub>4</sub> content, and 1gm equivalent of COD = 0.4 litre CH<sub>4</sub> at 35<sup>0</sup>C. [6]

**Result and Discussion:** Domestic and municipal waste water processing plants that are characterized by their contents of complex organic contents of complex organic matter, either in liquid and solid streams or as volatile suspended solids, which can be treated anaerobically to effectively reduce the pollutants and to generate bioenergy. The

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Received on: July 2013

Accepted after revision: August 2013

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estimated global methane emissions is shown in the next page. [7]

Conclusion: Biogas (like CH<sub>4</sub>) has now been attractive practicable alternative source of energy especially in the context of rural energy supply. Anaerobic processes have significant potential for the various animals, municipal ,

agricultural and industrial waste, this can be converted as a valuable source of energy. This bioenergy technology will also prevent the mass destruction of forests. Again dumping of biomass in the Geo-environment is not a solution to the problem. It may pollute ground water and causes health hazard. [8]

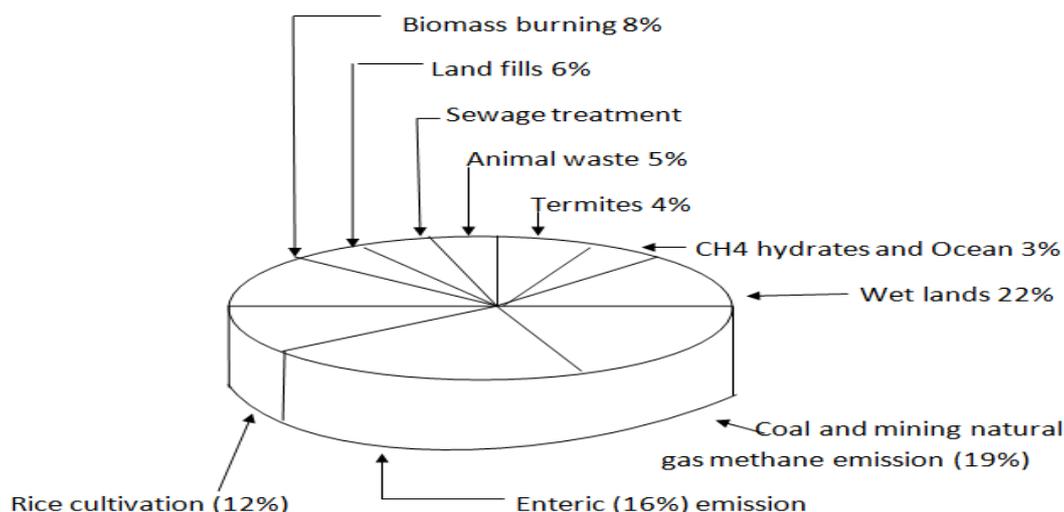


Fig. No. 1 Estimated global emissions (Ref 5)

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