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Carbon Footprint of Municipal Solid Waste in Greater Bangalore

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Carbon footprint refers to the quantity of carbon emitted from anthropogenic sources. Municipal solid waste plays a significant role in carbon footprint of urban society. Municipal solid waste mainly consists of degradable materials and non degradable materials. The increasing municipal solid waste generation along with the high fraction of organic waste and its unscientific disposal is leading to emission of methane in the atmosphere. A questionnaire survey was conducted during August-December 2011 which has covered 1967 households in Bangalore city. The survey considered various parameters such as process of collection of waste, time, frequency number of persons involved in waste collection, bin size, distance of bin from house, bin clearance time, transportation of waste landfill site, distance of transportation of waste was investigated and analyzed. The outcome revealed that average household waste generated is in the range of 87.9 gm/per/day to 156.0 gm/per day. Survey reveals that organic fraction constitute about 80% of the waste generated in each zone. This suggests of strong recovery potential and conversion to energy or compost. This paper provides the information on both quantity and composition of residential waste is important to enhance the sustainable solid waste management and planning of household waste treatment and infrastructure.

Keywords: *Global warming; Solid waste; Methane; Greater Bangalore.*