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## **Effectiveness of Households Level Solid Waste Management Practices in Gampaha District in Sri Lanka**

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The haphazard disposal of waste pose risks to the environment and affect the health of humans and animals leading to serious economic and social issues. Therefore, safe solid waste management (SWM) practice is of utmost importance specially at the household level. This paper analyzes the effectiveness of household solid waste management practices based on a survey conducted. A systematic sample of 17% of the households selected from the six Grama Niladhari (GN) in Gampaha Municipal Council (GMC) was surveyed.

The study revealed that the home composting method and changing attitudes towards source segregation could be practiced successfully, as a suitable waste management technique, and confirmed home composting is a simple and low cost solution to managing household organic waste at source. Home composting significantly reduce the quantity of organic waste adding to the mainstream, reducing subsequent emissions of greenhouse gasses at the final disposal sites. Furthermore, with the practice of improved solid waste management practices, 51 % householders have practiced source segregation of household waste, 80 % of householders have properly use of compost bins and, 50% of householders have been able to maintain the compost bin and 84% have practiced home gardening using the composted household waste.

The amount of mixed waste received by the GMC was drastically reduced and had been able to gain financial benefits from the sale of recyclable material. The total amount of waste being sent to the final disposal site by GMC has been reduced by 13.43 tons per day. Further, practicing formal and regular public private cooperation. The educating and evaluating the service of the sanitary workers and providing them with necessary facilities by Local Authorities will be helpful to enhance and sustain the households waste management system.

It can be concluded that good household waste management practices lead to reduce the cost of waste disposal, generate income by sale of recyclable waste, and indirectly contributes to the food security and poverty elevation of the country.

**Key words:** *Households waste management systems, effectiveness, public private partnership, MSW*

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