

Waste Valoisation: Exploring Waste Plastics Bottles Management in Ayawaso West Sub-Metropolitan Area, Accra

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2014

ABSTRACT

Management of waste in the Accra Metropolitan Area has been a very expensive venture for the Assembly over the years, yet coverage is still very low. Compounding the problem is the recent introduction of plastic products such as sachet water, whose waste are littered about the city daily. Bottled water, which has been on the market for years now, has always been a preserve of the rich. However, with the recent reports of falling sachet water quality, the bottled water industry appears to be expanding with more Ghanaian consumers patronizing the product. Managing the waste bottles therefore has the potential to become as challenging as the sachet water problem if sustainable solutions are not mapped out early. This study sought to look at the socio- demographic factors that are influencing the shift towards bottled water usage and also to assess the level of microbial contamination on waste bottles sold on the market to reusers. The study further sought to assess the possible management options available for the waste bottles. The results of the study showed that income level was the only socio-demographic variable that had a significant influence on bottled water patronage. This was attributed to the fact that bottled water is seen as safe and more hygienic than sachet water by most Ghanaians irrespective of their educational level, age or employment status. Media reports of unhygienic operations of illegal sachet water producers was given as the main reason for this perception. Income was the only limiting factor since bottled water is about eight times the price of an equal volume of sachet water. Thus as income levels in Ghana continue to rise, patronage of bottled water is expected to increase proportionally. Microbiological analysis of the used bottles from the markets revealed 60% of the bottles were contaminated with total coliforms and 40% of the bottles with faecal coliforms. The study proposed recycling as the best option for managing the

bottles since reuse as it is currently practiced has serious public health implications and formalizing it would not be a financially viable option.

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