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WASTE CHARACTERIZATION AND WASTE MANAGEMENT PERCEPTION IN RURAL COMMUNITIES IN MEXICO: A CASE STUDY

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Abstract

The insufficient waste collection service and scarcity of studies about municipal solid waste (MSW) generation in rural communities from developing countries has negatively influenced how MSW is managed by residents and authorities. This has brought about pollution and affected the quality of life of the residents from those communities. This study aims to determine the quantity and type of household waste generated, as well as to know the perception of the community on MSW management in San Quintin and Vicente Guerrero, two rural communities in Mexico. The MSW study was carried out in both winter and summer, considering one socioeconomic status (low-median) and the waste collected by the Municipal Department of Waste Management (DWM). The social perception study was carried out with 96 residents, considering a confidence level of 95%. Per capita solid waste generation (PCG) in San Quintin was 0.681 kg/capita/day and 1.102 kg/capita/day in Vicente Guerrero. The main components in both communities are food residuals (28.40%), plastics (14.95%), textiles (7.40%) and disposable diapers (11.50%). More than 75% of the residents are dissatisfied with the waste collection service and 25% believe that the problems caused by MSW disappear after these are collected. PCG and composition in San Quintin and Vicente Guerrero differs from the values reported from border rural communities in Mexico and in other small cities in developing countries. As there is no previous study of this kind in rural areas, these findings may be taken as a reference for other rural communities.

Key words: characterization, Mexico, rural, social perception, solid waste

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