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STUDY OF AN ANNUAL WASTE RECYCLING INDEX IN SPAIN

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Abstract

The management of urban solid waste is a growing priority both in large cities and in rural settings, and in developed and developing countries. Many factors can influence the type and amount of waste generated, including population density, level of industrialisation, quality of life of households, type of area (urban/rural) and local climate. In this paper, we introduce an index of solid waste recycling over a ten-year period and examine the influence of several such factors on this index. A descriptive and spatial analysis reveals significant differences by region; thus, the values of the recycling indicators are higher in northern Spain than in the south. In this respect, a clear progression was observed during the study decade. Using panel data analysis, a balanced model with fixed effects is fitted to explain the waste recycling index, and the factors that significantly influence this index are identified. The method presented in this paper could subsequently be extrapolated for application to other areas or regions.

Key words: recycling, statistical modelling, urban solid waste

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