



“Gheorghe Asachi” Technical University of Iasi, Romania



THE EFFECT OF SOCIO-ECONOMIC PARAMETERS ON WASTE GENERATION AT COUNTY LEVEL

Izabela Anna Talalaj

*Bialystok University of Technology, Department of Systems of Environmental Engineering,
Wiejska 45A Street, 15-351 Bialystok, Poland
E-mail: izabela.tj@gmail.com; Phone: +48 85 746 9579*

Abstract

The paper evaluates the effect of selected socio-economic parameters on the generation of municipal waste in Podlasie Province of north-eastern Poland. The study was made over the eight year period (2001-2008) and seventeen separate counties were analyzed. Principal component analysis (PCA) as a multivariate statistical method was used for filtering the data so that only the significant independent variables could be determined. The first component explained over the 54% of waste production variance. It indicated that the waste quantity in urbanized area was associated with infrastructure development and employment in industry and building sectors. The second component was not directly associated with the production of waste, while the third component illustrated the connections between the waste accumulation index and tourist facilities and the accumulation of waste per unit area. During analysis the lack of significant statistical relationship between the average monthly wages and the quantity of waste was also found.

Keywords: socio-economic parameters; waste management; waste quantity

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