

A questionnaire-based survey on municipal solid waste composting in an agro-industrial area

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Keywords: municipal solid waste, composting, survey, questionnaire.

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The development of recycling/composting systems for municipal solid waste management represents a challenging initiative, targeting at the principles of resource efficiency, circular economy and sustainable development. In this framework, the current study aims to investigate the opinion, awareness and readiness of residents of a Greek city (Kozani) situated in an agro-industrial area (Region of Western Macedonia, Greece) with regard to newly introduced integrated recyclable waste collection and composting programs instead of traditional collection schemes.

For that purpose, a questionnaire was designed and distributed randomly to 100 residents and a statistical analysis was then performed to assess the influence of a number of explanatory variables on recycling behaviour and willingness to participate in organic waste composting actions. Specifically, the questionnaire-based survey results were processed and evaluated based on the p-value, and a χ^2 relevance check was performed between the survey variables and the independent variables, in order to ascertain and then interpret potential causal relationships. Key factors shaping the respondents' perceptions and attitudes with regard to such a municipal solid waste recycling/composting program were associated with their sex, age, education level and residence type.

Citizens generally demonstrated positive behaviour regarding the current waste management program, although there are still some issues that need to be addressed. The role of social research is highlighted, intending to encourage policy-makers to develop more effective strategies and detailed plans for accelerating the implementation of recyclable waste management schemes, by improving citizens' understanding, strengthening the positive attitudes for new technologies advancement and promoting public participation. In this framework, the present field study can be a useful tool to enhance social supportiveness towards sustainable solid waste management systems development.