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***ICEEM/03 – ENVIRONMENTAL MANAGEMENT
SECTION***

Environmental Impact and Life Cycle Assessment

**USE OF LIFE CYCLE ASSESSMENT AS DECISION-
SUPPORT TOOL IN WASTE MANAGEMENT
PLANNING – OPTIMAL WASTE MANAGEMENT
SCENARIOS FOR THE BALTIC STATES**

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Abstract

This article presents a new Life Cycle Assessment model for waste management planning (WAMPS) and summarizes the results of a case study, which was carried out in the frame of the RECO project in Tallinn municipality in Estonia. The aim was to study the consequences of different waste management systems (scenarios) based on life cycle perspective in order to obtain solutions for municipal solid waste management that are optimal for the society and take into account environmental and economic effects. The results of the case study show that the present waste management system where most of municipal solid waste is landfilled, has the highest environmental impact. Therefore, it can be concluded that considerable benefits can be obtained through reduction of waste sent to landfill. The optimal scenario, which could be a basis for further development of the waste management system in Tallinn municipality, is the scenario where recycling is combined with incineration. This also allows fulfilling the targets of EU waste directives.

Keywords: life cycle assessment, decision support tool, municipal solid waste management, optimal waste management scenarios

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