

# Food Waste in Insular Communities in the Framework of Green Deal Strategy

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## Abstract

The issue of food waste is of high importance in the efforts to fight hunger and raise income in the world's poorest countries. According to Food and Agriculture Organization of the United Nations, over 1/3 of all produced globally goes to waste (88 million tones in European Union). The annual value of food wasted globally is 1 trillion dollars and it weight 1.3 billion tones. Food waste is not only an ethical and economic issue but it also depletes the environment of limited natural resources. Food losses have an impact on food security for poor people, on food quality and safety, on economic development and on the environment. The 2030 Agenda for Sustainable Development highlight the increased global awareness of the problem. Furthermore, the Sustainable Development Goals set a target for halving per capita global food waste at retail and consumer levels by 2030, as well as reducing food losses along the production and supply chains. Also, the new Green Deal European Strategy with the Farm to Fork Strategy will also contribute to achieving a circular economy. The main objective of this study is the qualitative and quantitative compositional analysis of the municipal solid waste, produced in the Sotira and Paralimni Municipalities located in the Eastern Region of Cyprus, the analysis of existing methods (door to door collection for recyclable materials, etc.), and to propose a new, more efficient and effective waste management plan. Through composition analysis, it is estimated that over 30% of the household's food production ends up in the landfill; specifically 30.6% of food waste from Sotira Municipality and 34% from Paralimni Municipality. These amounts could have been avoided if proper food management had been implemented in every household. Also, the analysis highlighted the need to develop actions to divert food waste, as well as the development of awareness activities. Starting with prevention actions in households, household composting, implementation of the "pay as you throw" system and public awareness actions, are the main pillars of the proposed management plan.

**Keywords:** circular economy, municipal solid waste, green deal, sustainable development, solid waste management