

Waste Prevention: The Case of The Municipality of Halandri

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Abstract

Food loss and waste accounts for approximately 24% of landfilled and combusted municipal solid waste in the US [1]. Food “loss” occurs before the food reaches the consumer, while food “waste” refers to food that is fit for consumption but consciously discarded at the retail or consumption phase [2]. The societal impact is great as 36.2 million people cannot afford a quality meal every second day. Regarding the environmental impact that is described as 8-10% of global greenhouse gas emissions induced by food decomposition in the landfills. The UN Sustainable development goal 12.3 has set as a target to halve per capita food waste at the retail and consumer level by 2030 [4, 5]. Saving food and preventing food waste production has been adopted recently as a strategic goal by the Municipality of Halandri, Athens, Attica. The wide number of food retailers and hospitality businesses located in Halandri discard significant quantities of food daily that the waste management services of are called to handle. Based on the findings of the EU Horizon Waste4Think project, that was implemented in Halandri in 2016-2020, the household food waste can be collected separately and subsequently utilized in a number of ways, thus lightening the burden of urban waste management. The product FORBI that was produced in Waste4Think has been successfully tested as an alternative fuel for cement producers and has been also used as a composting enhancer and for the production of bioCNG via anaerobic digestion. Since October 2022 three EU

funded projects called FoodRUs, ToNoWaste and FodoFood Connections fuel the drive of the change regarding food waste in Halandri. A comprehensive survey to set the baseline has been launched and the first outcomes are obtained. All available methods to measure food waste have been employed. Citizens of the Municipality have participated with diaries and questionnaires by Households, retail shops and HoReCa alike (HORECA FW). Two compositional analyses were also conducted. Two public nurseries have participated by measuring their food waste on a monthly basis. All public nurseries of the municipalities have also completed questionnaires. The results show 127 kg /year/ca HHFW (household food waste), 25% of which could have been avoided. The HORECA FW results show that 50% of food waste could have been avoided, the same for one of the two nurseries. It is concluded that a significant portion of the daily discarded edible food could have been avoided. Awareness raising and educational workshops may play a significant role towards the above-mentioned scope. Participating in monitoring of food waste has been proven to contribute to that scope. Locally focused actions where the separate collection of HHFW significantly fosters this effort. The Municipality of Halandri has been actively engaging the society' stakeholders to the mentioned activities, aiming to empower each actor towards food waste prevention.

Keywords: Food waste, households, UN target, food loss, food waste prevention

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