

State of the Art of Food Waste Measurement: a Key Challenge to Support Prevention and Reduction

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Abstract

Reducing food loss and waste (FLW) is a key challenge of current food systems and halving the amount of per capita food waste at the retail and consumer levels is listed among the Sustainable Development Goals (SDG n. 12.3) together with the reduction of food losses in the production and processing stages of global food chains. Despite the broad consensus on the importance of reducing FLW to make food systems more sustainable, considerable gaps of information still exist. Early studies on FLW provided an overview of the scale of the problem (Parfitt et al., 2010; FAO, 2011), and had a very important role in spreading the awareness about this issue. The number of studies reporting the amount of FLW in different stages of the food chain increased steeply after 2010, by providing evidence of the amount of FLW generated in different settings. However, the approach of the studies has continued to be quite fragmented for several years, by providing studies with limited representativeness, and mostly focusing on case studies. To design effective interventions against FLW, policy makers need a detailed measurement of the extent of FLW along food supply chains, as well as evidence about the context-specific drivers of FLW, is crucial to inform such interventions (Cattaneo et al., 2021). This challenge is directly addressed in the EU with legally binding targets to reduce FLW and, at the same time, the construction of a monitoring framework that requires Member States to produce regular reports of FLW by stage of the food chain. In October 2019, a common methodological framework to develop FLW measurement at all stages of the supply chains, entered into force in the EU. The first mandatory national reports of FLW, following the common methodological framework, are due in June 2022, referring to the year 2020.

Keywords: waste hierarchy; food waste prevention; food waste assessment; SDGs

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