

A systems approach to assessing environmental and economic effects of food loss and waste interventions in the United States

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Abstract

Reducing food loss and waste (FLW) is critical for achieving healthy diets from sustainable food systems. Within the United States, 30% to 50% of food produced is lost or wasted. These losses occur throughout multiple stages of the food supply chain from production to consumption. Reducing FLW prevents the waste of land, water, energy, and other resources embedded in food and is therefore essential to improving the sustainability of food systems. Despite the increasing number of studies identifying FLW reduction as a societal imperative, we lack the information needed to assess fully the effectiveness of interventions along the supply chain. In this paper, we synthesize the available literature, data, and methods for estimating the volume of FLW and assessing the full environmental and economic effects of interventions to prevent or reduce FLW in the United States. We describe potential FLW interventions in detail, including policy changes, technological solutions, and changes in practices and behaviors at all stages of the food system from farms to consumers and approaches to conducting economic analyses of the effects of interventions. In summary, this paper comprehensively reviews available information on the causes and consequences of FLW in the United States and lays the groundwork for prioritizing FLW interventions to benefit the environment and stakeholders in the food system.

Read the article in [Science of the Total Environment](#) [1].

Associated Project:

[Food Waste and The Environment](#) [2]

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[1] <https://doi.org/10.1016/j.scitotenv.2019.06.230>

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