

Food waste: The paradox that continues to undermine food and nutrition security worldwide

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Sufficient food is being produced worldwide to feed the global population. However, the prevalence of food and nutrition insecurity continues to rise significantly, particularly in low- and middle-income countries (LMICs) (Beyene, 2023). Even a cursory glance at the statistics for the past 5 years shows that various phenomena and events severely impacted the efforts to reduce widespread hunger and food insecurity. The COVID-19 outbreak was an occurrence unlike any other experienced by humanity before, as it enforced unprecedented control measures in the form of lockdowns, domestic and international trade restrictions, closure of ports and airports, physical distancing, and suspension of production activities, all contributing to the severe food supply chain disruptions. In addition to these, the fragile and unsustainable food systems in many regions of the world were further exposed to various stress factors, contributing to the deepening of the structural weaknesses associated with production, distribution, access, and stability, pushing more people into food crises and food inadequate states (Kakaei et al., 2022). The Ukraine–Russia conflict dealt another crippling blow to a world reeling from the COVID-19 pandemic, rattling the already volatile food and energy markets, hampering economic recovery, fueling inflation, and consequently contributing to an overwhelming rise in food and energy prices. The subsequent spate of climate and weather shocks has only contributed to further magnifying the effects of other factors and thereby, presenting new challenges to global food and nutrition insecurity.

While food insecurity involves the aspects of physical availability, access (physical, social, and economic), utilization, and stability (sustainability) of food, another dynamic that has emerged as a major threat to the highly prevalent food and nutrition insecurity—food waste, often used synonymously, albeit wrongly, food loss, and food waste are two distinct aspects of a similar problem, as evidenced variously by literature published over the past few years (Ishangulyyev et al., 2019; Santeramo, 2021; Wahbeh et al., 2022). As explained by Schuster and Torero (2016) in their hallmark publication, where food loss effectively is a pre-consumption phenomenon, referring to an accidental

reduction in both quantity and quality of food at production and postharvest stages, food waste, on the contrary, implies that food fit for human consumption is “intentionally” discarded, and is purely a consumer behavior-oriented dimension.

Food waste is a highly pertinent issue owing primarily to two factors. From an ethical standpoint, it emphasizes the need for reflection in the context of how our production systems cater to the wider needs of society as a whole. From an economic point of view, it calls for a need to maximize economic efficiency, necessitating food production for those in need while ensuring that a significant share of the produced goods is not lost to spoilage inefficiencies in logistics. On the whole, food loss and, more importantly, food waste continue to compromise the food security status worldwide significantly, presenting a paradox where, in the face of the growing global demand for food and millions suffering from undernourishment, close to 1.3 billion tons of edible food, effectively amounting to a one-third share of the total food produced globally, are lost or wasted along the food supply chain (Santeramo, 2021). Reduction of occurrences of food waste along the food supply chain is the key to reducing food insecurities and, consequently, improving food security status worldwide and reducing strains on the natural resources and production systems. This will also ensure that sustainability is achieved in terms of production systems and processes and in the context of reducing the environmental footprint originating from the food ending in landfills.

While food security garners greater attention in publications and reports, a pivot to the need for nutrition security is paramount, given that the incidence of preventable diet-associated noncommunicable disease conditions is rising. Many of these can be prevented by ensuring consistent access to affordable, nourishing, and wellbeing-promoting food options, nutrition education, an ethos central to nutrition security, and achieving health and health equity. In conclusion, it is pertinent to note that a huge quantity of nutrients is lost when food gets wasted or thrown away, compromising food and nutrition security. As responsible individuals, we should ensure that “more food should end up in someone’s stomach, rather than in a landfill.”

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