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# Minimize food loss and waste to prevent crises

Russia's invasion of Ukraine and the associated economic and trade consequences have added to the global food security disruptions caused by the COVID-19 pandemic (1). Russia produces 6 to 20% of the world's potash, phosphate, and ammonia, and the trade embargo implemented in response to the invasion has led to increased demand for these important sources of fertilizer macronutrients (2). In addition, Russia and Ukraine together account for 18 to 70% of global wheat, maize, and sunflower exports (3), and Ukraine maintains a large seed bank that is now at risk of destruction (4). The fall in exports has led to food shortages and increased prices, including maize and wheat price hikes that are, respectively, 55% and 91% higher than prices for those products in 2021 (5). In the face of these challenges, strategies to ensure food security should be explored, including the prevention of food loss and waste.

More than 931 million tons of food was wasted in 2019 (6). About 8 to 10% of total global greenhouse gas emissions are associated with food loss and waste, with a monetary value of 1 trillion USD per year (7). Tackling the food loss and waste challenge would ensure a more sustainable, and reliable, long-term food supply chain (8).

During their May meeting, the G7 foreign ministers committed to reducing food loss and waste to enhance food security and fulfill the Sustainable Development Goals (9). The United States has identified four focus areas: preventing food waste, increasing food recovery, recycling food waste, and helping to coordinate food waste reduction. These efforts have been recommended to the US Congress to tackle food waste in the 2023 Farm Bill (10).

Food loss and waste accounts for 17% of total global food production (6). A coordinated global effort to reduce this wasted food could result in substantial food savings, mitigating the uncertainties caused by crises like the pandemic and Russia's invasion. Intergovernmental collaboration, in the form of organizations like the Intergovernmental Platform on Biodiversity and Ecosystem Services and the Codex Alimentarius Commission, will be essential to expedite the formulation of standards and codes of practice for this effort (11, 12).

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