Challenge

If food loss and waste (FLW) were a country, it would be the third largest greenhouse gas (GHG)-emitting nation in the world. Almost a third of the food that is produced never reaches consumers – this is ‘food loss’. ‘Food waste’ occurs at the retail and consumer levels, and alone is responsible for a staggering 6% of total global GHG emissions. Over-purchasing and improper storage and disposal are major sources of food waste in high- and middle-income countries, while low-income states experience significant pre- and post-production losses. FLW also has substantial impacts on resource use, accounting for up to 24% of total water, arable land, and fertiliser consumption. The economic value of FLW worldwide is estimated at between USD one trillion and USD 2.5 trillion.

Strategies for reducing food loss and waste

Reducing FLW at the production stage

Food losses are higher in the Global South due to less efficient pest control and production methods. To combat this, focusing on improving production among smallholder farmers is essential, with pre-harvest losses accounting for as much as 60-80% of total losses. Enhancing post-harvest storage for staple crops, like using proper containers and timely harvesting, is crucial.

Reducing food loss at the processing and transport stage

In the Global South, the most promising interventions at the processing and transportation stage focus on fresh fruits and vegetables, fish, meat, and dairy products. These interventions involve improving packaging and storage during transport and supporting processors to increase their capacity to process received products.

Reducing food loss at the distribution stage

Efforts to reduce retail food waste in Europe include flexible quality standards, surplus diversion to food banks, pricing adjustments, better inventory management, and smaller packaging. Retailers can be motivated by tax credits for food donations and high waste disposal fees.

Reducing consumers’ food waste

Consumer food waste increases with prosperity, accounting for approximately half of all FLW in Europe and the USA, but not in the Global South. Effective reduction strategies involve education, waste disposal fees, improved packaging, and labelling. Composting food waste is also an environmentally friendly option.
Recommendations for addressing food loss and waste

Reduce damage to natural resources such as soil, water, and biodiversity

○ Develop a well-funded international programme to fill the data gap, by using existing protocols, with the aim to provide detailed annual estimates of FLW (including data on nutrient losses) along the food supply chain.

○ Formulate concrete pathways for repurposing perverse and harmful agricultural subsidies to incentivise and fund efforts for the reduction of FLW, as part of larger efforts to repurpose agricultural subsidies overall.

○ Strengthen multi-stakeholder platforms that promote dialogue among researchers, industry and the private sector, politicians and civil society, and raise public awareness on the need and ways and means to reduce FLW.

Barriers to acting on food loss and waste

Data Uncertainty
Lack of accurate data at both national and international levels hinders the development of effective FLW reduction policies.

Insufficient financial support in the Global South
In the Global South, a lack of resources for improved farming and post-harvest storage technologies, along with subpar transport and storage methods, hinders loss reduction.

Weak incentives and consumer awareness
High producer subsidies, particularly in high- and middle-income countries, hinder FLW reduction by lowering food prices, reducing incentives to cut waste.