# Combating food loss and waste (FLW)

# Perspectives and positions of social movements

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Food Loss and Waste (FLW) is a significant issue in the agrifood system, impacting the economy, environment, poverty, employment, and natural resources. Over a third of food produced is lost or wasted, accounting for $1 trillion in US dollars (WFP, 2020). The amount of FLW is sufficient to meet rising food demand, which could reach 150-170% by 2050. Corporate-led unsustainable agrifood systems prioritize profit over providing optimal diets, endangering food security and sovereignty. Reducing food loss and waste can improve nutrition, particularly for the estimated 2 billion individuals suffering from nutritional deficiencies (HLPE, 2019).

The corporate-led agrifood system leads to significant food loss and waste, affecting food security and nutrition. This is due to high concentration of corporations in supply chains, inequalities in distribution, and loss of land,

water, and biodiversity. Big food corporations dominate the food business sector, causing both quantitative and qualitative food loss and waste (FAO, 2019). Food loss occurs at every stage of the food supply chain, impacting poverty, hunger, climate change, and natural resource extraction. Addressing food waste is not only about inefficiency but also about human rights, employment, and social justice (Shafiee-Jood & Cai, 2016).

Food loss and waste (FLW) is a significant issue in developing countries, primarily occurring during the manufacturing and post-harvest phases of the supply chain due to inadequate infrastructure and expertise (Sawaya, 2017). In industrialized nations, food waste occurs during post-harvest grading, retailing, and post-retailing phases (HLPE, 2014). In developing countries, weaker infrastructure restricts the ability to convert agricultural products into preserved food, particularly for fruits and vegetables (HLPE, 2024). Other factors contributing to food loss include unsold food in retail stores, plate waste in homes, restaurants, and cafeterias, un-eaten edible food, food scraps from food preparation, and by-products of food and beverage processing. These factors contribute to the overall food waste crisis.

**Multifaceted Manifestation and Impacts of FLW**

Food loss and waste are significant issues in rural households, affecting land, water, fertilizer, and cash. These losses hinder farmers' ability to expand and enhance their business ventures, causing damage to consumers, producers, nutrition, health, and finances. Women are disproportionately affected by these losses, as they handle most post-harvest tasks (WFP, 2015). Food loss and waste can lead to wasted opportunities to address hunger and micronutrient deficiencies. Nutritional inequalities are exacerbated by the vast volumes of food lost throughout the food supply chain. Over 60% of micronutrients, protein, fat, calories, amino acids, and vitamins are lost due to spoilage and loss of highly perishable foods (FAO, 2019). Food waste also turns into methane, a greenhouse gas that can cause 25 times more global warming than carbon dioxide (Cambridge, 2007).

## The significance of mitigating food loss and waste

Sustainable Development Goal 12 aims to reduce global food waste and food losses by 2030, aiming to ensure sustainable consumption and production patterns. However, with only six years to complete this goal, there are still numerous tasks to be done. Minimizing food loss across the supply chain, including post-consumption waste, will enhance Food Security and Nutrition, reduce environmental impacts, and reduce greenhouse gas emissions (Lipinski, 2013).

## FLW perspectives and experiences in Bangladesh

The UNEP Food Waste Index in 2021 revealed that Bangladesh generates 1.6 million tons of food waste annually, with Per capita FLW of 65 kilograms of prepared food or ingredients wasted annually. Bangladesh has the third-highest rate in South Asia. High-income households in Bangladesh waste more food than middle-class and lower-class households (FAO Bangladesh, 2021), with a high-income household wasting 26 kg of food per capita per month. The country's food waste problem is multi-stage, originating during the transitional phases of food production from farm to consumer.

## The role of stakeholders including social movements and Civil Society Organizations

The complex process of addressing food waste and loss (FWL) encompasses individual ethics, dietary habits and culture, behavioral approaches, and a multifaceted agrifood system and its governance. This entails multistakeholderism and the collaborative efforts of several stakeholders relevant to their unique contexts and conditions. In this regard, improving communication and raising awareness is crucial for all stakeholders in the food supply chain, both public and private. Primarily, emphasis should be given to the producer's point of view. This refers to producers' education and experience, harvesting practices, support for storage/cooling, and social infrastructures. Agroecology demonstrates that it is a producer-centered

strategy with a bundle of measures to sustain a variety of crops and livestock, fields, farms, and landscapes. Empowering food actors, improving environmental quality, reducing FLW, and increasing long-term productivity all contribute to sustaining agrifood systems. Stakeholders and actors including social movements and civil society  committed to reducing FLW's need to transform the corporate-led agrifood system to be sustainable, economically, and environmentally resilient.

The agrifood system should be transformed based on a circular and solidarity economy that prioritizes recycling and reuse particularly agroecology and the concept of food sovereignty, which reflects the public commitment to reducing FLW. Moreover, not only does it impact the way production and consumption patterns are managed at the food system level, but it also has an impact on the institutional framework of how agrifood systems are operated. Reducing FLW is one of the important steps in the radical transformation of global food systems that agroecological practices and the notion of food sovereignty offer. It addresses food production, processing, trade, and consumption with equal emphasis on improving the livelihood of farmers, farm laborers, and their families. In this sense, by scaling up agroecology and food sovereignty integrating the government and other actors, different movements particularly farmer’s organizations and movements need to play a crucial part in addressing hunger, biodiversity degradation, and food loss and waste.

**Multistakeholder coordinated actions needed to counter the FLW**

FLW has appeared as one of the most pressing concerns for future food systems to address regenerative, sustainable, resilient systems that eradicate hunger and lessen the effects of climate change. In this connection, communities have to take priority actions and move forward with innovation to reduce food loss and waste in the direction of restoring and building resilient and sustainable agrifood systems. The government and FAO along with other farmers and social movements need to assist in carrying out coordinated actions involving the public (national or local authorities) as well as the private sector (businesses and individuals) to address the persistent challenges associated with FLW.

## Conclusions

The global farmers' movement, in particular LVC, unveils the underlying crises and weaknesses of the current agrifood system and regime, which are both enormously responsible for annual food loss and waste and a major contributor to ecological and environmental destruction as well as climate change. Globally, an astounding 2.6 billion tons of food remain uneaten. This figure accounts for food waste at the retailer and consumer level, as well as food loss throughout the completely fresh grocery supply chain. The data indicates that almost 45% of all fruits and vegetables produced end up in the trash instead of being consumed. Food spoilage in fields or in landfills, as well as harvested food lost in the supply chain, contributes 8 to 10% of global greenhouse gas emissions. We would be able to feed the 820 million undernourished people on the planet each year if we conserve one-third of the food (World Wildlife Fund, 2021). Lastly, one of the most crucial ways to reduce food loss and waste is through agroecology and food sovereignty, which support a holistic system approach, sustainable, environmentally friendly, and climate resilient agriculture production, strengthening local and territorial food systems, efficient resource use, shorter supply chains, and most importantly, sustainability and circularity in lifestyle.

## Recommendations

- The government, in collaboration with the social and farmers' movements, needs to move the agri-food system from linear to circular, with a focus on solidarity economy procedures that promote sustainable production and consumption.
- It is important take actions to promote agroecology and food sovereignty as a holistic systems approach that redesigns food systems to shorten value chains and increase resource efficiency to reduce food waste, rather than supplying enormous volumes of food to markets through corporate-led value chains
- It is anticipated that agrifood systems should adhere to agroecological principles to reduce waste and pollution and promote biological processes

that drive the recycling of water, biomass, and nutrients within a production system

- Government and FAO along with different social movements and civil society organizations should work collectively in the development of national strategies to address food loss and waste by aligning public policy frameworks and farmer-to-consumer behavior toward an integrated objective.
- It is imperative to improve farmer capacity and knowledge, harvesting methods, storage and cooling facilities, and other strategies to boost market access while integrating with improved agricultural technologies to reduce FLW
- We expect the government, FAO and other social movements including farmers organizations would support the development of an agrifood system that gives people authority over their own food systems, food cultures, and environments, thereby bringing about a significant shift toward agroecology as alternative agriculture.
- The digitization of the food chain might enable measures that reduce food losses and provide new and useful insights into emerging and current FLW scenarios. In this regard, the role of government, social movement and FAO is indispensable to take significant steps to increase the digital literacy skills of small-scale farmers and other stakeholders.
- We strongly believe that improving the local and territorial food system, along with the local storage system, contributes significantly to reducing the distribution and consumption phases of the food supply chain, as well as the production and post-harvest stages. We hope the government, FAO and farmers movement will actively and collectively act in this regard.
- We also anticipate that government and FAO involving various movements and stakeholders should lead an extensive campaign aimed at raising awareness about the importance of food and the detrimental effects of food loss and waste among consumers (youth, adults, and children), producers, business associations, and local communities at the local, national, and regional levels.
- We oppose the corporate-dominated agrifood supply chain and production system, which includes climate-smart agriculture, undermining the system run by small-scale producers and exacerbating hunger. In this regard, the government, FAO and farmers movement should take a stance

in favor of agroecology, food sovereignty, human rights, and social justice in order to reduce food loss and waste.

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