



## Enabling a legal environment for the prevention and reduction of food loss and waste



Valeria Pasarín and Teemu Viinikainen

Food loss and waste (FLW) is a global burden with a negative impact on the economic, social, and environmental dimensions of sustainable development. The loss and waste of food suitable for human consumption hampers food security and nutrition and hinders the realization of the human right to adequate food.

Regulatory measures to tackle FLW include establishing institutional mechanisms for coordination of action, allocating clear roles and responsibilities among all stakeholders involved and setting binding targets for the reduction of FLW. These can enhance the transparency and accountability of all actors relevant for the prevention and reduction of FLW throughout the food supply chain.

This legal brief outlines a set of key national level regulatory measures that contribute to an enabling environment for the prevention and reduction of FLW at all stages of the food supply chain under an agrifood system approach. This brief is drafted in accordance with international standards, particularly, the Food and Agriculture Organization of the United Nations (FAO) *Voluntary Code of Conduct for Food Loss and Waste Reduction*.



© Shutterstock.com 1673612614

## Background

Agrifood systems require urgent transformation to provide safe, affordable, and healthy diets for everyone, and sustainably realize the human right to adequate food, without compromising the wellbeing of future generations. Existence of FLW is evidence of their current shortcomings.

**Food loss** means the decrease in the quantity or quality of food resulting from decisions and actions by food supply chain actors from the production stage up to, but excluding, retailers, food service providers and consumers. Subsequently, **food waste** is the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food service providers and consumers.

FLW leads to unnecessary pressure on the environment and waste of resources that have been used to produce, distribute, or conserve that food (FAO, 2019). It is estimated that 14 percent of the world's food production is lost (FAO, 2019), and 17 percent is wasted (UNEP, 2021) and that around 8 percent to 10 percent of global greenhouse gas emissions are associated with FLW (UNEP, 2021).



The United Nations' *2030 Agenda for Sustainable Development* dedicated a specific target to the reduction of FLW. The Sustainable Development Goal (SDG) 12 on "**Ensure sustainable consumption and production patterns**", seeks at target 12.3 to "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses". Reducing FLW can also contribute to other SDGs related to food security and nutrition as well as environmental sustainability (FAO, 2019).

As a multicausal problem that occurs at all stages of the food supply chain, effective strategies to tackle FLW need to address its root causes. It is essential to create enabling legal frameworks that contribute to efficient, inclusive, resilient, and sustainable agrifood systems for better production, better nutrition, a better environment, and a better life.

## The human right to adequate food and food loss and waste

From a human rights perspective, one of the most worrying consequences of FLW is its impact on the realization of the human right to adequate food, which is realized when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement (*General Comment 12*, CESCR, 1999).

States are the primary duty bearers of human rights. According to *the International Covenant on Economic, Social and Cultural Rights (ICESCR)*, a State Party has the obligation "to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the Covenant by

---

FLW is a sign of the poor functioning of current agrifood systems

---

all appropriate means, including particularly the adoption of legislative measures". This must be done without discrimination of any kind (Article 2).

Reducing FLW is imperative to comply with the obligation to ensure the realization of the right to food (FAO, 2018). The reduction of FLW can contribute also to other human rights, such as the right to a healthy environment. Legislation is one of the strongest tools for this purpose (Muñoz Ureña, 2021) and it, alongside policies and programmes to reduce FLW, should be designed and implemented in a participatory, gender-sensitive and inclusive manner, in line with the principles of a human rights-based approach.

## Voluntary Code of Conduct for Food Loss and Waste Reduction

In 2018, the FAO Committee on Agriculture requested the development of a code of conduct on FLW reduction. Through an inclusive process involving multiple stakeholders, FAO developed a global non-legally binding instrument: the *Voluntary Code of Conduct for Food Loss and Waste Reduction* (CoC FLW), endorsed in June 2021 by the FAO Conference.

The CoC FLW presents internationally and regionally recognized, locally and nationally adaptable guiding principles and standards for responsible practices that governments and other stakeholders can voluntarily apply to reduce FLW while promoting sustainable and inclusive agricultural and agrifood systems.

The CoC FLW promotes the mainstreaming of FLW reduction in all policy frameworks related to agrifood systems and recognizes the importance of fostering coherence and coordination across the policies, institutions, and legislation relevant to FLW reduction. According to the CoC FLW: "Governments should set up adequate national legislative frameworks, [...] that require or encourage food supply chain actors to adopt science-based practices and make adequate investments to sustainably reduce FLW" (paragraph 4.8.1). In the same vein, it states that "Governments should promote an enabling policy, legal, regulatory and institutional environment, including appropriate safeguards where necessary, that fosters responsible investments by relevant authorities and food supply chain actors to reduce FLW" (paragraph 4.8.2).

---

The CoC promotes the mainstreaming of FLW reduction in all policy frameworks related to agrifood systems

---

## Regional efforts

In the European Union, the European Commission adopted the "*Farm to Fork Strategy*" as part of the European Green Deal presented in 2019 to enable the transition to a more sustainable agrifood system. The Strategy calls for legally binding targets to reduce food waste and revise the rules on date marking, which are known to contribute to confusion over the durability of food and lead to FLW (European Union, 2022).

## Enabling a legal environment for the prevention and reduction of food loss and waste

The African Union in the *Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods* in 2014 and the *Post-Harvest Loss Management Strategy* in 2018 set ambitious commitments to reduce FLW, aligned with the SDGs. Likewise, the Association of Southeast Asian Nations' *Strategic Plan of Cooperation in Food, Agriculture and Forestry, 2016-2025* aims to minimise pre- and post-harvest losses and waste as one of its priority areas.

The Latin American and Caribbean Parliament (PARLATINO), based on the technical assistance of the Hunger-Free Latin America and the Caribbean Initiative Support Project, and of the Development Law Service of FAO, approved a *Model Law on Prevention and Reduction of Food Loss and Waste* in February 2022. This makes Latin America and the Caribbean the first region to have such a model law.



Source: European Union. 2022. Farm to Fork Strategy. In: *Farm to Fork strategy, European Commission*. Cited 11 August 2022. [https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\\_en](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en)

## National regulatory measures: key regulatory mechanisms to address food loss and waste

FLW is often indirectly and partially covered by existing legal frameworks, which may or may not specifically mention the two terms. Prior to adoption of any new regulatory mechanisms, countries should thus complete an assessment of how the current legal framework may encourage or discourage FLW. Food loss is often affected by, among others, legislation covering agriculture and the food supply chain, while laws related to food waste tend to include waste management, food donation, and food and feed safety and quality. To avoid legal fragmentation, considerations on FLW may need to be introduced to all relevant legal instruments governing agrifood systems, rather than trying to comprehensively cover it all in a single law on FLW.

Nevertheless, the adoption of framework legislation specifically on FLW – one setting the overall responsibilities to various state authorities and private actors, potentially establishing binding targets to reduce levels of FLW and requiring the creation of targeted policies – may allow addressing FLW through a holistic approach. An example comes from Catalonia (Spain) where the *Law No. 3/2020, on food loss and wastage prevention*, creates obligations to reduce food waste for all stakeholders throughout the whole food supply chain.

The non-comprehensive list below introduces key regulatory mechanisms to address FLW that FAO has found to be useful.

### 1. Establish an adequate institutional framework

Identification of implementing authorities and allocation of responsibilities to them are needed for the implementation, monitoring and enforcement of the legal framework to reduce FLW. As a cross-cutting issue, tackling FLW will require the collaboration of various public entities and the

collaboration of civil society and the private sector. Therefore, legislation may need to attribute interinstitutional coordination competence.

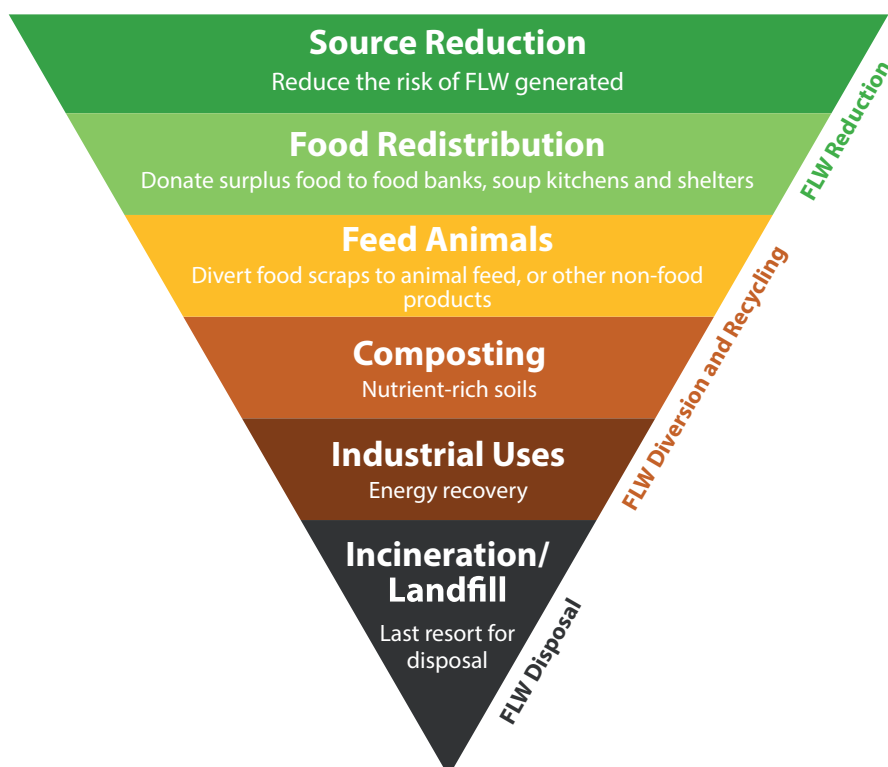
Options for countries to establish a national institutional framework on FLW include transferring the responsibility to a single institution that exercises this responsibility in coordination with authorities of involved sectors (as is done in Argentina through *Decree No. 246/2019, Regulation of the national food loss and waste reduction plan*); distributing competencies on FLW among existing authorities; or designating an interagency coordinating body as the responsible authority to prevent and reduce FLW.

## 2. Adopt a food material hierarchy

Legislation can require the state to organize all its activities in reducing and managing FLW according to a hierarchy that prioritizes how different material streams are handled and make the application of the hierarchy a responsibility for both the state itself and food supply chain actors, particularly food business operators. As an example, the Colombian *Law No. 1.990/2019, creating the policy to prevent food loss and waste and other provisions*, prioritizes actions that diverts food otherwise lost or wasted to human consumption and, secondarily, animal consumption.

The food material hierarchy proposed by the CoC FLW provides guidance on how to prioritize efforts to respond to FLW:

Figure. Food waste hierarchy



### Food Material Hierarchy in the *Voluntary Code of Conduct for Food Loss and Waste Reduction* (paragraph 4.8.3)

In order of priority, the options in this food material hierarchy are to:

1. Prevent FLW from occurring in the first place within the food supply chains.
2. Recovery and redistribution of any surplus or unsold/unmarketable food, provided it meets all food safety and nutritional requirements.
3. Diversion of surplus or unsold/unmarketable food to animal feed or transformation to non-food items, ensured that all safety and quality requirements are met.
4. Recycling of surplus food, material that leaves the food supply chain as FLW, inedible parts and by-products, through energy generation by anaerobic digestion and composting for use as fertilizer.
5. Incinerate the material to generate energy (thermal treatment with energy recovery), taking measures to limit any toxic emissions into the atmosphere.
6. Disposal by incineration or landfilling.

### 3. Set binding legal targets to reduce food loss and waste

The CoC FLW calls for states to establish a baseline against which to monitor FLW reduction, and to set time-bound targets that they plan to achieve. These can include binding legal targets, borrowing an approach from climate change framework laws, which, while difficult to negotiate, have shown the effectiveness of legally established reduction targets (FAO, 2020). To accurately establish baselines, tools for FLW measurement, data collection, and statistics are required. These can take the form of mandatory reporting requirements for food supply chain actors on the amount of FLW they create. Annual reporting requirements by food sellers above a certain capacity have been introduced in Poland under their *Act 2019/1680, on counteracting food waste*, as well as in Uzbekistan, under *Decree No. 574/2021 of the Cabinet of Ministers, on additional measures to reduce losses of agricultural commodities and foodstuffs*.

### 4. Establish a food donation system

Preventing FLW from occurring is priority number one when designing strategies to tackle FLW. However, as some food surplus is inevitable, legislation should provide for the establishment of a food donation system for nutritious food that is still safe to eat.

Food donation has proven to be a key legislative entry point for countries to address FLW. Related legislation should require that donated food is safe and nutritious; determine principles governing food donation and define the obligations, liabilities and responsibilities of food donors and receivers. An early example of food donation laws is *Law No. 25.989/2005, special regime for food donation (DONAL)* in Argentina, which established a special regime for food donation. The trend to regulate food donations gained a new impetus in 2016 with the French *Law No. 2016-138, on the fight against food waste*, which made food donation an obligation for certain retailers.

## 5. Ensure food safety and quality

National legal systems should have well-designed food safety and quality legislation and effective procedures for their implementation, to ensure food is safe for human consumption without increasing FLW through overly stringent safety and quality requirements. Such legislation should be consistent with internationally agreed standards, especially *Codex Alimentarius*, follow risk-based approaches, and introduce procedures to ensure compliance with FLW reduction efforts without endangering food safety.

As an example, food operators involved in food donations should be subject to the same requirements as any other food business operator and guarantee that food products are safe for consumption. Similarly, the food safety authority should ensure that food donations are subject to the same food safety risk-based controls that are applied to other foods on the market. Regulators may also need to consider how to re-shape liabilities over the safety and quality of donated food – without endangering consumer health – to encourage food business operators to donate food to charities.

## 6. Define clear date labelling requirements

Governments should ensure clear and harmonized requirements for food date marking, considering Codex labelling standards.

### “Best before” vs “Use-by” labels

The *Codex Alimentarius General Standard for the Labelling of Prepackaged Foods* establishes a clear distinction between:

- “Best Before Date” or “Best Quality Before Date” means the date which signifies the end of the period, under any stated storage conditions, during which the unopened product will remain fully marketable and will retain any specific qualities for which implied or express claims have been made. However, beyond the date the food may still be acceptable for consumption.
- “Use-by Date” or “Expiration Date” means the date which signifies the end of the period under any stated storage conditions, after which the product should not be sold or consumed due to safety and quality reasons.

The “best before” date implies a quality standard, while the “use by” date refers strictly to the safety of the food product. Confusion by consumers and retailers between “best before” and “use-by” has contributed to food waste.

The clear distinction of date labelling requirements is also important for food donation systems, which may allow the donation of food that is near its expiration date but still safe to eat. Food donation legislation commonly allows for such donations, as in Croatia under *Regulation on the donation of food and animal feed of 2019*.

## 7. Adopt appropriate fiscal measures

The CoC FLW recommends tax legislation to be FLW sensitive, either by disincentivizing actions that contribute to FLW or incentivizing those that reduce it.

Disincentives to discourage FLW include limiting the tax deductibility of the food lost or wasted or the imposing of landfill taxes for discarded food. This is what the CoC FLW calls “pay-as-you-throw” systems, which aims to make directing food to landfill the most expensive option. In Chile, *Law No. 21.210/2020, modernize tax legislation*, establishes that the voluntary destruction of food fit for human consumption but whose commercialization is not viable anymore, is not considered a “loss” that can be counted as an expense. Thus, the taxpayer cannot deduct the disposal of food from the amount of income tax payable but can deduct donations.

---

Confusion by consumers and retailers between “best before” and “use-by” has contributed to food waste

---

Tax incentives, such as making food donations deductible, can work as well. Colombian legislation on FLW is a clear example of this strategy, as it establishes in *Law No. 1.990/2019, creating the policy to prevent food loss and waste and other provisions*, that the donation of food generates the application of the benefits recognized in the tax statute for donations. In China, the *Anti-food Waste Law of the People’s Republic of China (No. 78 of 2021)* introduces a number of tax policies conducive to preventing food waste.

## Conclusion

When choosing regulatory measures, states should evaluate their implications across agrifood systems. This is important considering the interconnection between the complex web of actors and activities and help in anticipating potential trade-offs. A comprehensive agrifood system approach is vital to ensure success of the different legislative interventions.

While positive regulatory developments continue to enable an institutional and legal framework to prevent and reduce FLW, the work is still far from done. The set of actions and measures agreed in the CoC FLW provide global level guidance and facilitate coordinated interventions to tackle FLW in a comprehensive manner, while bearing in mind that any measure taken must be tailored to the national and local contexts.



## References

**CESCR (Committee on Economic, Social and Cultural Rights).** 1999. *General Comment 12 – The right to adequate food (Article 11)*. E/C.12/1999/5. Geneva.

**European Union.** 2022. Farm to Fork Strategy. In: *Farm to Fork strategy, European Commission*. Cited 11 August 2022. [https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\\_en](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en)

**FAO (Food and Agriculture Organization of the United Nations).** 2018. *Food loss and waste and the right to adequate food: making the connection*. Rome. 48 pp.

**FAO.** 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. Rome. 182 pp.

**FAO.** 2020. *Agriculture and climate change – Law and governance in support of climate smart agriculture and international climate change goals*. FAO Legislative Study No. 115. Rome. 376 pp.

**Muñoz Ureña, H.A.** 2021. *Avances legislativos sobre prevención y reducción de pérdidas y desperdicios de alimentos en América Latina y el Caribe*. FAO Legislative Study No. 116. Rome, FAO. 155 pp.

**UNEP (United Nations Environment Programme).** 2021. *Food Waste Index Report 2021*. Nairobi. 99 pp.

# Key messages

- Food loss and waste (FLW) is one of the main challenges agrifood systems face to improve food security and nutrition and environmental sustainability to ensure the effective realization of the human right to adequate food.
- Response to FLW is evolving from general policy statements and application of generic legislation on related topics to concrete regulatory interventions. While the initial responses were targeting specific sections of the food supply chain such as food donations, and often limited to food waste, recently, a comprehensive agrifood systems approach that also targets food loss is emerging.
- FAO, through the Development Law Service, actively supports Member Nations in their efforts to identify the best policy and regulatory actions to reduce FLW and has ongoing projects around the world.
- The endorsement of the *Voluntary Code of Conduct for Food Loss and Waste Reduction* by the FAO Conference in June 2021 aims to provide global level guidance on a set of actions and measures that, not only Nations, but all stakeholders in the food supply chain can undertake to address the challenge of achieving SDG target 12.3 by 2030.

