



IFC Food Loss and Waste Prevention Advisory for

Retailers



What is Food Loss and Waste (FLW)?

Food Loss and Waste (FLW) – the decrease in the quantity or quality of food intended for human consumption, of either edible or inedible status, caused by actions and decisions of all actors along the food supply chain.

Food Loss (FL) – the decrease in the quantity or quality of food resulting from decisions and actions by food suppliers in the chain, excluding retailers, food service providers and consumers.

Food Waste (FW) – the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food service providers and consumers.

Food Surplus (FS) – food and inedible parts that are sent to the following: redistribution to people (e.g. through a charity or commercial redistributor), animal feed or bio-based materials/biochemical processing (e.g. feedstock for other industrial products).

As applicable to the Retail stage of the Food Supply Chain, Food Waste (FW) is the primary concern.

Why is FLW important?

- Approximately one-third of all food produced globally by weight is lost or wasted along the food supply chain annually (FAO, 2013).
- Despite producing enough food to feed everyone, 733 million people still face hunger globally (FAO, 2024).
- Of all municipal solid waste generated globally, organic waste represents 40% (World Bank, 2018).
- The cost of global food loss and waste (FLW) is estimated at \$1 trillion (UNEP, 2024).
- Concerning impacts to the environment, FLW causes about 8-10% of global Greenhouse Gas (GHG) emissions (UNFCCC, 2024).
- Lost and wasted food consumes a quarter of all water used by agriculture annually (FLW Standard, 2016).

Focusing on retailers:

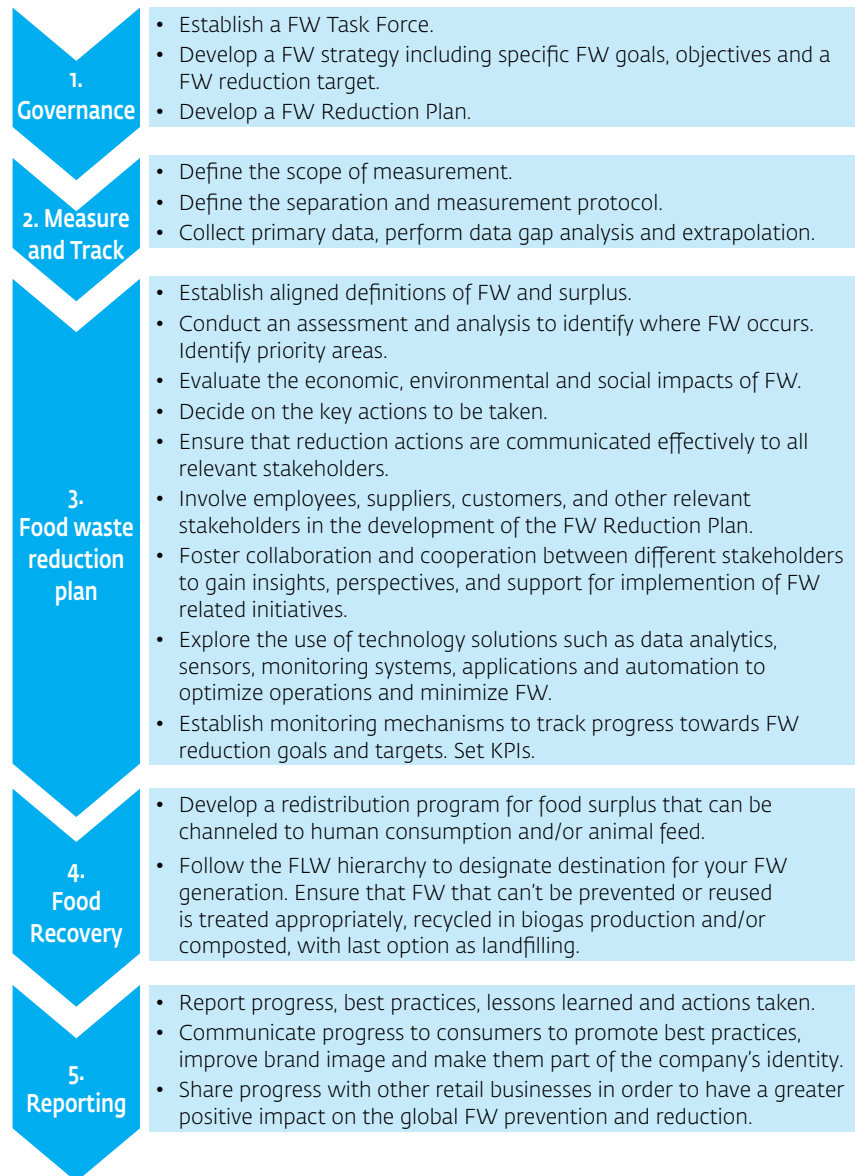
- In industrialized countries, largest food waste volumes (about 40%) occur at retail and household levels (FAO, 2011).
- FAO highlights that *"If we want to get serious about tackling food waste, we need to increase efforts to measure food and inedible parts wasted at retail and consumer level."*





The Food Waste (FW) Reduction Journey

Here are actions retail businesses can consider when tackling FW generation.



What are the challenges retail businesses might be facing?

Retailers may face the following challenges when tackling FW:

- Poor storage conditions (space limitations, temperature control/ humidity inefficiencies).
- Spoilage.
- FW generation is part of business model.
- Packaging quality or inadequate packaging.
- Overstock: excess inventory that ends up being discarded.
- Consumer quality standards for products.
- Limited shelf life of perishable food.
- Inappropriate work procedures.
- Expiration dates: removing products before reaching their actual expiration dates.
- "Best before" vs. "use by" product labelling.
- Lack of system for food donation.
- Lack of system for food diverted to animal feed.
- Lack of dynamic pricing.
- Retailers with high % e-commerce have high levels of returns which may not be managed correctly and end up as waste.
- A high percentage of packaged products, requiring effort to separate out the weight of packaging from the weight of food wasted.
- Mixed waste, due to the range of product (food and non-food) categories sold.
- A large number of sites (e.g. DCs, stores, points of sale), requiring coordination among many site-specific data sets (and possibly owners) to quantify and aggregate FW totals.
- Inventory problems, ordering policy and product availability, assortment policy and product placement.



Collecting FW Data

- The scope of the FW inventory should include all food and associated inedible parts, covering all operations the business owns or directly controls.
- The measurement method does not need to be highly technical or fully comprehensive, but must be consistent and reliable, whilst being focused on the goals and objectives agreed.
- The FW inventory must be reported in weight.
- There is no specific method to quantify the FW, but the two main quantification approaches for retailers are:
 - **Product-based methods:**
 - Product based (SKU) scanning: A bottom-up method. POS scanned data based on food product weights at SKU-level for all unsold products.
 - Financial data conversion: Converting lost sales data into FW estimates.
 - **Waste-records based:**
 - Direct weighing of segregated FW as it leaves retail stores/ depots.
 - Mixed waste sampling: sampling and weighing waste of different types.

What are the benefits for retail businesses?

Here are some of the benefits retailers can obtain from beginning their FW reduction journey:

Environmental (including Climate)	<ul style="list-style-type: none">• Reducing FW in retail reduces the use of inputs (i.e. energy, water and land), and ultimately reduces the carbon footprint of food production.• Engaging in FW reduction can help deliver climate goals both for own operations and with supplier base.
Social	<ul style="list-style-type: none">• FW reduction may enhance food availability and accessibility, and therefore improve food security.• Increasing employee and customer awareness on the impact of and benefits of reduction.• Increasing positive local community engagement by creating partnerships with charities, associations, food banks for donation of food surplus to those in need.
Financial	<ul style="list-style-type: none">• FW reduction contributes to 3-6% of cost savings by avoiding the cost of products unsold and waste management (WRAP).• Improving efficiency in operations when FW is taken into account and managed responsibly. This will reduce hidden costs which are associated with improper FW management.• Reducing FW means reducing costs as wasted materials need to be processed and/or lose value.• Being aware of the FLW that occurs and knowing how to prevent it can increase operational functionality and effectiveness of the company.
Legislative	<ul style="list-style-type: none">• Reducing FW ensures ahead of time adherence to emerging FLW legislations obliging actors from the food industry to report and monitor their FW generation.• Accounting for FW generation allows companies to be prepared in case they want to sign voluntary FLW agreements i.e., WRAP / Champions 12.3 / 10x2030, 10x20x30.
Reputational (Brand)	<ul style="list-style-type: none">• Improving corporate responsibility.• Meeting customer expectations of companies to deliver sustainability measures in their operations, in the products that they sell, and in their supply chains.• Inspiring more conscious marketplace and positive change.



Sample questions for retail businesses

Understanding where business is on its FW journey is essential before taking any steps setting reduction targets and developing roadmaps. Asking questions such as the ones below helps to establish the current status and define the next steps accordingly:

- Does the company understand the definition of FW in its sector?
- Has the company estimated the volume of its FW generation?
- Has the company estimated the economic cost associated with its FW generation?
- Does the company have KPIs for FW reduction?
- Does the company engage in sustainability reporting?
- Is the company considering the role of FW as part of its GHG emissions reductions roadmap / net zero journey?
- Is the company signatory to voluntary FLW agreements and needs support in following these i.e., WRAP / Champions 12.3 / 10x20x30 / 10x20x30?
- Does impending FLW legislation impact the company? (please note this question is country specific – i.e., France and Spain have legislation and mandatory requirements with regards to FLW measurement and reporting).
- Is the company struggling with cost-of-goods increases and therefore could benefit from the FW prevention and reduction in terms of cost savings?
- Does the company have a process set up to prevent / reuse FW thus avoiding FW?
- Does the company have a process set up to donate / re-distribute surplus food, thus avoiding FW?
- Does the company have a process set up to appropriately dispose of FW?
- Is the company communicating with its consumers to change behavior and attitudes towards FW?
- Is the company engaging with its suppliers on FW?
- Is the company prepared for the customers' growing demands on sustainability measures in its operations?
- Has the company already identified any hotspot of FW generation in its operations? But does not know the cause of it?
- Has the company considered the labelling as a possible cause of FW generation?
- Has the company considered mark down or prices for food products that are about to go off?
- Does the company upcycle food into new products (i.e. soup from vegetables that are about to go off)?
- Does the company prioritize local and seasonal produce?

Insights gathered from these questions will help in designing measurement procedures, reporting standards, and site metrics which can be tailored to the company's needs and amenities.

Potential Interventions

Interventions can be done by:

- a. **The company directly** – either before IFC disbursement or after with appropriate reporting back to IFC;
- b. **The company works in partnership with IFC**, potentially through Advisory Services engagement.

Examples:

- Initial assessment of status quo.
- FW measurement and monitoring.
- Impact evaluation of actions and interventions.
- Create a culture on FW inside the company through employee awareness and training on FW prevention/reduction.
- Include FW in key performance indicators (KPIs) for company's departments as well as for individual team members.
- Identify local / national partners for food surplus redistribution.
- Engage with customers to help drive FW reduction in the home.
- Adopt good practices on how products are packaged, labelled and priced, that can be used to reduce FW.
- Investigate processes to divert food that can't be donated into animal feed.
- Engage external stakeholders like suppliers to collect their FW data.
- Improve inventory management.
- Review quality control processes to identify if unnecessary FW is being created by QA process.
- Ensure high forecast accuracy to avoid over-stock especially with short shelf-life items.
- Ensure storage facilities do not contribute to FW occurrence.
- Increase financing for innovation and scaling of promising technologies.
- Shift the mentality of the team.
- Digitization of processes.



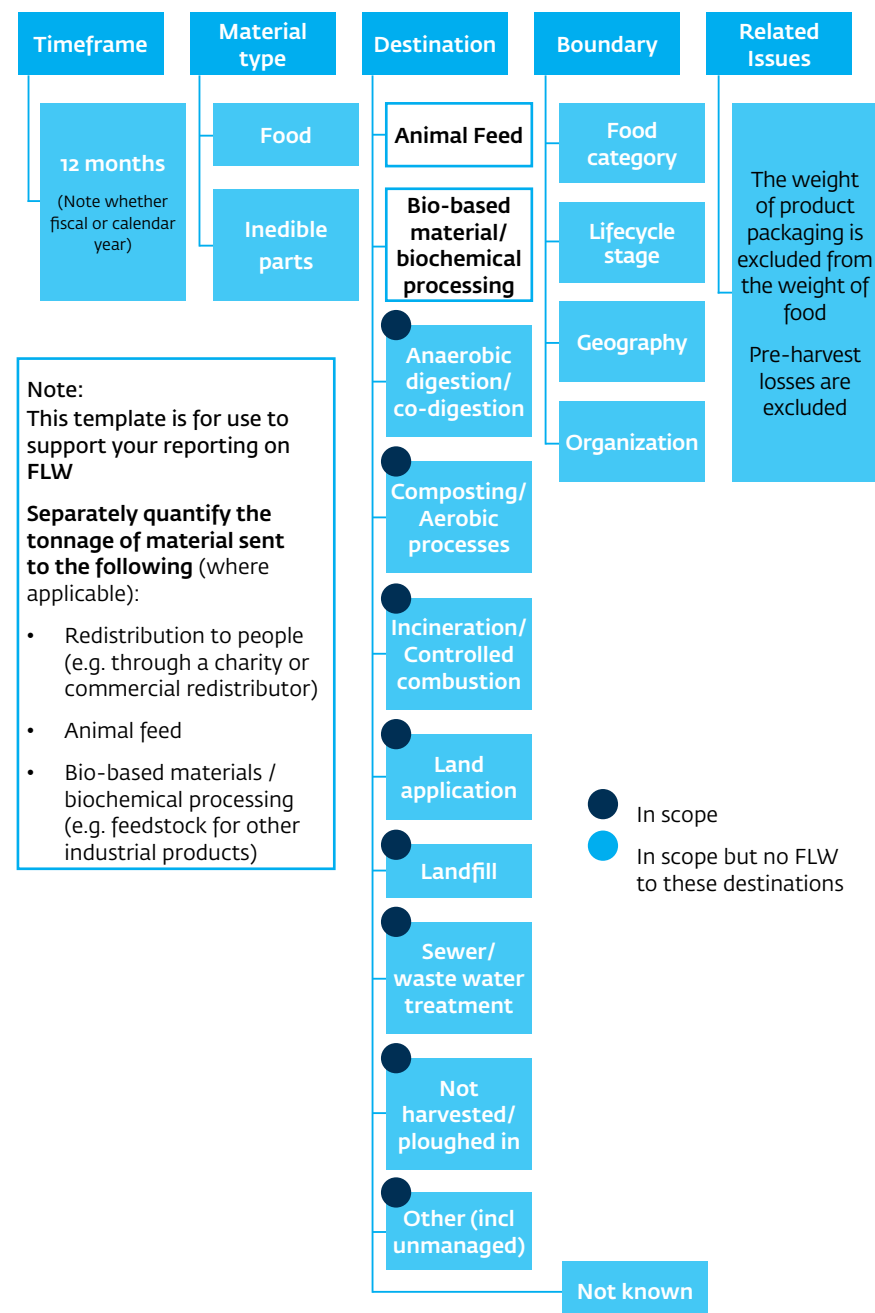


IFC FLW Advisory Tools

- **Assessment Tool** permits verification of current FLW status of client and review of existing practices.
- **Training course** introduces key issues on food loss and waste (FLW) in the food supply chains. It is designed to help IFC clients understand the importance of FLW and the need to act. In this regard, this course builds on the global Food Loss and Waste Standard, the most widely system to quantify and report FLW, and guidance on how to set targets and a roadmap.
- **Data Capture Sheet (WRAP)** supports the FLW data analysis and monitoring process. The tool is in line with the principles to Target, Measure and Act in support of UN Sustainable Development Goal 12.3, and it complies with the FLW Standard.
- **Progress Tool** allows to track year on year reductions in FLW and give a monetary value to FLW and food surplus.
- **Data Validation Checklist** enables IFC to check over any data that clients have entered. This is a very high-level checklist, that allows IFC to ensure the key information has been included.
- **Client Tool Checklist** goes into detail about each step of the reporting process and assists with the reporting process for both the WRAP data sheet and the Progress Tool.
- **IFC Food Loss Climate Impact Tool** assists in quantification of FLW in terms of avoided GHG emissions.

NB: IFC FLW Advisory Tools encompass both Food Loss and Food Waste, therefore the terminology used in reference to IFC Tools includes FLW.

Scope of the FLW Inventory



The material in this work is copyrighted.

Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. IFC does not guarantee the accuracy, reliability or completeness of the content included in this work, or for the conclusions or judgments described herein, and accepts no responsibility or liability for any omissions or errors (including, without limitation, typographical errors and technical errors) in the content whatsoever or for reliance thereon. The findings, interpretations, views, and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the Executive Directors of the International Finance Corporation or of the International Bank for Reconstruction and Development (the World Bank) or the governments they represent.

© International Finance Corporation.
October 2024. All rights reserved.

Contact Information



International Finance Corporation

2121 Pennsylvania Avenue, NW
Washington, DC 20433 USA



IFC Global Food Loss and Waste Prevention Advisory

ifcfs@ifc.org



www.ifc.org/foodsafety



[@IFC Agribusiness](https://www.linkedin.com/company/ifcagribusiness)