

EBRD food waste road map for retailers



Introduction

Navigation & referencing

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The European Bank for Reconstruction and Development (EBRD or the Bank) is committed to promoting "environmentally sound and sustainable development" in the full range of its activities. The Bank recognises that environmental and social sustainability is a fundamental aspect of achieving outcomes consistent with its transition mandate. Therefore, the projects that foster environmental and social sustainability are among the Bank's highest priorities.

Food waste is a "nexus issue" for businesses - tackling it is essential for addressing climate change, food security, and many other critical sustainability challenges in the 2020s.

About this document

This report summarises the findings of a technical assistance pilot project commissioned by the EBRD on food waste reduction in retail value chains. The contents were developed from desk-based research and more than 50 interviews with policy, business and NGO experts across the EU and Turkey.

This document focuses on the role of retailers in tackling food loss and waste reduction. The intended audience of this document is EBRD staff and the Bank's clients. The contents are intended to help inform the development of food loss and waste strategies in client businesses.



Food loss and waste - A nexus issue for retail ESG strategies

Reducing food loss and waste is critical to delivering a more sustainable food system.

Food waste prevention offers many sustainable development opportunities for people and planet - from improving food security to tackling the climate crisis and supporting communities recover from the COVID-19 pandemic.

Despite the clear economic and environmental benefits of tackling food waste, according to the UN, this potential has been "woefully under-exploited". Given its importance, food waste should be a core strand of retail environmental, social and governance (ESG) activities.

Increasing ESG disclosure and regulation

An increasing number of policy and regulatory frameworks are emerging that will raise the importance of reporting on food waste and related issues. Examples include the Task Force on Climate-Related Financial Disclosures, Sustainable Finance Disclosure Regulations, Corporate Sustainability Reporting Directive and the EU Taxonomy. Disclosure and reporting on ESG are also essential elements of the EU Sustainable Action plan. It will be critical for companies, especially in the EU and EU accession countries, to start developing their disclosure frameworks - including on food waste.



Food security •

Around 800 million people do not have enough food to eat. Decreasing FLW can contribute to reduced world hunger and improved food security. Reducing FLW by 25 percent would reduce the food calorie gap by approximately 12 percent³.



Deforestation & biodiversity risk

The amount of crop land used to grow lost and wasted food is 198 million hectares per year, which represents one-fifth of the crop land used globally for food production. Reducing FLW can reduce pressure on land use and contribute towards addressing biodiversity targets.



Water stewardship

The production of lost and wasted food accounts for 173–250 km3 of water consumption per year⁴. A FLW reduction strategy can help reduce stress on water catchments in emerging countries.



Climate change

FLW is responsible for an estimated 8% of global greenhouse gas emissions². To help visualise the sheer scale of the issue, if FLW were a country it would be the world's third largest carbon emitter after the USA and China.

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Economic development

Food loss and waste resulted in roughly US\$940 billion in economic losses globally in 2012⁶. Investing in food loss and waste reduction efforts can therefore reap significant economic benefits to business and society at large.



Food loss

& waste

Circular economy

In cities, where the majority of food is now consumed, less than 2% of the valuable biological nutrients in food by-products and organic waste is composted or otherwise valorised. Instead, these nutrients are typically destined for landfill, incinerators or, worse, languish in open dumps or are released untreated, where they pose public health hazards to nearby residents and cause damage to the environment.⁵

Retailers - a key FLW influencer

FLW can occur at every stage of the food value chain, from agricultural production through to final household consumption. In Europe, North Africa and Central Asia food waste occurs most frequently in agricultural production and in consumer households (see figure, below). The underlying drivers of FLW differ by value chain stage and can be multi-faceted and complex. Retailers, as key players in the value chain,

can have significant influence over levels of FLW through their approaches to specifying, forecasting and ordering products - particularly highly perishable foods, such as fresh produce and bakery. The diagram below shows some of the most common underlying causes of FLW. Those bullet points with asterisks* are those which retailers can help address through their day-to-day practices.



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% of total FLW by value chain stage ⁷	Agriculture & fisheries	Handling & storage	Processing	Distribution, retail & food service	Households
Europe	33%	10%	5%	10%	42%
N Africa, West and Central Asia	29%	20%	9%	19%	24%
	 → Adverse environmental events (e.g. drought) → Inadequate harvesting and agronomic practices → Contamination → Lack of a buyer for produce that doesn't meet customer specifications* 	 → Inadequate cooling/drying techniques and storage facilities → Inadequate packaging* → Inadequate storage materials or treatment (e.g., lack of access to metal silos, no treatment of warehouse for pests) → Contamination 	 → Losses from washing and changeovers between batches → Poor production and procurement planning* → The return of products that are approaching their 'use by' or 'best before' dates to suppliers* → Changes to orders* 	 → Poor stock management* → Cold chain interruptions and poor infrastructure* → Inaccurate forecasting & ordering* → Lack of process for discounting/donating food reaching end of shelf life* 	 → Confusion over 'best before' and 'use by' date labels* → Reduced of shelf life due to poor supply chain practices* → Poor storage → Lack of food knowledge

Interviews with leading retailers and manufacturers identified that there is now a well-developed understanding of what FLW reduction best practice looks like for retailers. The business and environmental case is also clear. And while the specific changes to technology or store processes are highly sector and supply chain-specific - some key principles are applicable to any business. Twenty-eight common practices of FLW reduction leaders are summarised in this section across six areas. This list can be used as a guide for assessing the extent to which a business is embedding FLW reduction within its day-to-day operations.

The business case for FLW prevention

Tackling FLW offers a range of business benefits. Companies interviewed for the EBRD food waste project cited cost cutting, improving sales, and improving customer perception of products as being the major benefits. A Champions 12.3 study of the business case for FLW reduction, analysed data from more than 1,000 food business sites and found that 99% saw a net financial benefit from FLW projects and a median financial benefit of US\$14 for every US\$1 invested8.



1. Governance & strategy



2. Transparency & targets



3. Data & analytics

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4. Supplier engagement



5. Operational efficiency



Advocacy & consumer education



Strong governance and a clear FLW strategy is critical, as coordinated changes to policy and practice will be needed across multiple functions.

- → FLW reduction programme must be led from the top. Senior management and board buy-in is critical for the long term success of FLW action.
- → A cross-business working group of different business functions can encourage collaboration and sharing of best practice.
- → FLW KPIs should be included in relevant operational and senior management targets, internal scorecards and personal goals.

 Commonly used KPIs include: Total waste (tonnes) per €1,000 turnover; Food waste as % of food handled; % of surplus food redistributed; % of sales from price markdowns.

- → Link remuneration to hitting FLW targets, to further underline the importance of FLW.
- → Adopt the "Target-Measure-Act" approach when developing your FLW strategy (see WRAP below).
- → Increase awareness of boards on issues of sustainability and FLW through training, briefing.

Useful resources

- → Food Loss & Waste Protocol: https://flwprotocol.org/
- → WRAP food surplus and waste measurement and reporting guidelines for Food Retail operations: https://wrap.org.uk/resources/guide/food-retail-operations

FLW reduction programme must be led from the top.



Alongside appropriate governance, retailers should set targets that support global levels of ambition to reduce food waste - and transparently report progress using best practice in FLW accounting and reporting.

- → Set a target to reduce FLW by 50% by 2030 (in line with Sustainable Development Goal 12.3).
- → Use the Food Loss and Waste Accounting and Reporting Standard and any national or sectoral guidance to quantify and report this data.
- → Include current and historic FLW KPIs in annual sustainability report and corporate website. An example of good practice is Tesco's FLW reporting on its own operations and value chain (available at https://www.tescoplc.com/sustainability/).

→ Get food waste data assured by a credible third party to increase internal and external stakeholder confidence in information.

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SDG 12.3

In 2015, the UN adopted a set of 17 Sustainable Development Goals (SDGs). SDG 12 seeks to "ensure sustainable consumption and production patterns". The third target under this goal (Target 12.3) calls for halving per capita global food waste at the retail and consumer levels and reducing food losses along production and supply chains (including post-harvest losses) by 2030. This target has been adopted by nations and businesses and represents the appropriate level of ambition.

Set a target to reduce FLW by 50% by 2030.



Getting good quality, granular data on FLW quantities, composition and root causes is critical for developing a robust strategy and driving continuous improvement. New data collection and reporting processes will likely need to be put in place.

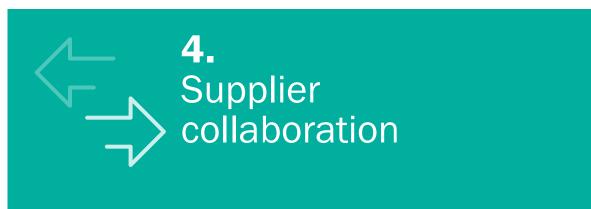
- → Invest in a FLW data collation and reporting system that enables SKU and store/site level analysis of FLW levels. Data should include information on why FLW occurred so that solutions can be identified.
- → Ensure FLW reports are fed back quickly to decision-makers and relevant operational teams (e.g. via daily operational meetings, internal

- "business intelligence" dashboards, store communications, etc.).
- → Once data collection is in place use data analytics to help identify trends in FLW events, potential causes and solutions.
- → Benchmark store FLW performance using measures that enable a fair comparison e.g. the 'Efficiency Frontier' (see ECR below).

Useful resources

→ The ECR "Sell More, Waste less" tool (https://ecr-shrink-group.com)

Benchmark store FLW performance using measures that enable a fair comparison e.g. the 'Efficiency Frontier'.



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- Greater value chain collaboration and the use of data-led approaches to reducing FLW in stores, depots and factories offer potentially significant economic savings for food businesses who invest in these approaches.
- → Implement IT-enabled stock tracking, forecasting and ordering systems that take into account trading history and wider economic and social data to ensure product ordering more closely matches consumer demand.
- → Engage strategic suppliers on FLW and understand how changes to product, forecasting and ordering could reduce food waste across the value chain.

- → Encourage suppliers to develop FLW strategy and commit to reductions and transparency.
- → Ensure trading practices do not increase FLW at supplier sites. Unfair trading practices (or UTPs) linked to food waste include: cancelling orders of perishable foods at short notice; returning of unsold stock back to suppliers; requesting suppliers pay for wastage of food at a buyer's premises, etc⁹. A draft EU Directive on UTPs has been published. The directive foresees investigations and penalties for the application of UTPs.
- → Understand and review the impact of product specifications and buying practices on FLW levels in manufacturing and on farms.

Encourage suppliers to develop FLW strategy and commit to reductions and transparency.

5. Operational efficiency and product innovation

Effective processes for key retail activities are critical for ensuring low levels of food waste in depots and retail stores. The end-to-end process needs to be examined to explore how it can be optimised to reduce FLW. This commonly covers the following areas of retail activity...

→ Optimise supply chain for waste reduction.

There is research that quantifies which practices are most likely to deliver reductions in store food waste. This is enabling fairer benchmarking of stores and the assessment of improvement potentials of different interventions. Using assumptions on a product's shelf life, daily demand, case size and the stock level at which new stock is ordered, a theoretical 'efficiency frontier' (EF) can be drawn showing for any given level of On-Shelf Availability (OSA), what level of waste will occur. The Efficiency Frontier can be shifted down ("waste less") and right ("sell more") by interventions that target the key underlying product and supply chain variables

used in the model e.g. shelf life, case sizes, differentiated OSA levels. A comprehensive checklist of best practices for waste reduction for perishables has been developed by ECR Europe. Visit https://ecr-shrink-group.com for details.

→ Implement mark down processes. Reducing the price of food products near to their 'best before' or 'use by' dates by 20% or more is a common tactic used by leading retailers. Ensuring these processes are in place and executed well should be an important part of a retailer's toolbox for reducing in-store food waste. This can be supported through innovations such as digital pricing systems. One such system called Wasteless achieved a 33% cut in store waste in a pilot in Spain (www.wasteless.co).

→ Adopt best practices on food date labelling.

Food labelling, including date labelling, provides essential information to consumers and retailers on the durability, safety and quality of food. This information has a major impact on how retailers and consumers handle products and make

decisions about their disposal. Because of this, the means by which date and storage information is decided, communicated and interpreted can have a significant impact on the levels of food waste. Guidance is available from the European Commission¹⁰ and WRAP on best practice¹¹.

- → Invest in packaging innovation in high value categories such as meat and dairy. Novel packaging and label technologies can help food businesses and consumers to better understand and extend the life of food products. For example, the "After Opening Freshness Label" developed by Insignia Technologies shows consumers when products are fresh or past their best.
- → Enable surplus sales, donation. Surplus food can be sold or donated by leveraging information technology that links sites with surplus product with new customers or charities. This can be achieved with limited capital investment through partnering with local or national 'food surplus management' platforms. This is a relatively new

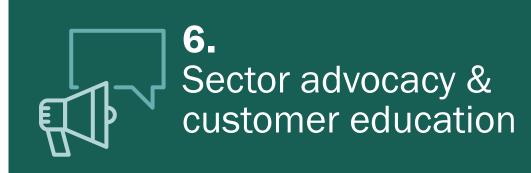
space, but rapidly growing in popularity in many countries. As a final option, surplus food can be sent to animal feed. Although this is better than land filling or composting/incinerating waste, it is not a food waste prevention measure.

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Retail waste rates

Globally, retail businesses are able to achieve an average food waste rate of <1% in stores. An analysis of the UK market saw that an average was 0.7% of sales was surplus or wasted. Where controls are not in place waste rates can be more than 10% of sales (particularly in categories, such as fresh fruit and vegetables and bakery). This is in line with published studies.

Adopt best practices on food date labelling. Food labelling, including date labelling, provides essential information to consumers and retailers on the durability, safety and quality of food.

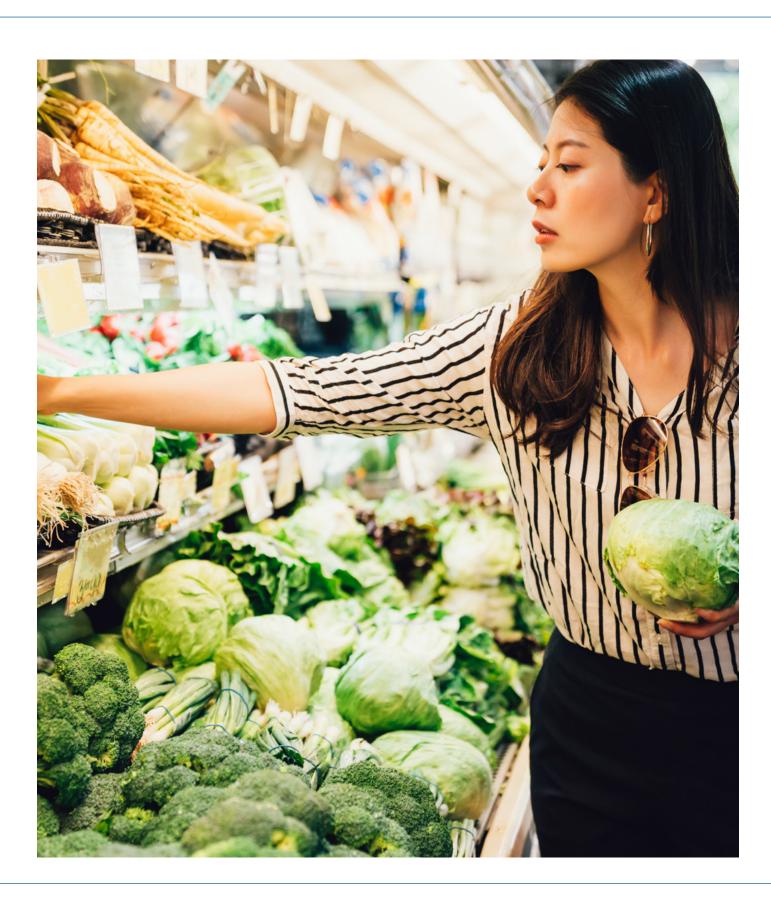


Finally, retailers should use their position of influence to advocate and educate.

Significant FLW reduction will require cross-sector action and changes to behaviours by consumers.

- → Educate consumers about how to reduce food waste in the home. This can be done on-pack, in-store and online.
- → Provide clear guidance to consumers on the appropriate storage of food items (e.g. store apples in the fridge to extend their shelf life by 5-7 days; or storing potatoes in a cool dark and dry place to reduce instances of greening, mould or rooting).
- → Participate in local sector initiatives to drive up standards and encourage better practice. Where these do not exist, consider promoting the development of new public-private platforms (for instance a voluntary agreement that targets FLW). More information on the benefits of voluntary agreements is summarised by the EU REFRESH project¹².
- → Advocate for national sector-specific guidance on food waste reporting and best practice (such as date labelling consistency and food redistribution).
- → Advocate for strong food waste policies by engaging with relevant ministries and agencies. For example, encourage the disclosure of food waste levels by business.

Participate in local sector initiatives to drive up standards and encourage better practice.



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Conclusions

Food waste is a "nexus issue" for businesses - tackling it is essential for addressing climate change, food security, and many other critical sustainability challenges in the 2020s and beyond. Food waste prevention offers many sustainable development opportunities for people and planet - from improving food security to tackling the climate crisis.

Despite the clear economic and environmental benefits of tackling food waste, according to the UN, this potential has been woefully underexploited. Given its importance, food waste should be a core strand of retail sustainability and ESG activities. Action on food waste will help businesses meet the requirements of an increasing number of policy and regulatory frameworks are emerging - especially on non-financial ESG disclosures.

Interviews with leading businesses conducted for EBRD identified that there is now a well-developed understanding of what FLW reduction best practice looks like for retailers. The business and environmental case is also clear. And while the specific changes to technology or store processes are highly sector and supply chain-specific - some key principles are applicable to any business. Twenty-eight common practices of FLW reduction leaders were identified across six areas:

1

A strong governance and a clear FLW strategy is critical, as coordinated changes to policy and practice will be needed across multiple business functions.

4

Greater value chain collaboration and the use of data-led approaches to reducing FLW in stores, depots and factories offer potentially significant economic savings for food businesses.

2

Alongside appropriate governance, retailers should set targets that support global levels of ambition to reduce food waste - and transparently report progress using best practice in FLW accounting and reporting.

5

Effective processes for key retail activities are critical for ensuring low levels of food waste in depots and retail stores. The end-to-end process needs to be examined to explore how it can be optimised to reduce FLW.

3

Getting good quality, granular data on FLW quantities, composition and root causes is critical for developing a robust strategy and driving continuous improvement. New data collection and reporting processes will likely be needed.

6

Retailers should use their position of influence to advocate and educate.

Significant FLW reduction will require cross-sector action and changes to behaviours by consumers.

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September 2021

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