



Food Waste

Up to one third of all food produced globally is wasted*

The United Nations estimates the world's population will grow from 8 billion to 9.7 billion by 2050, accelerating food demand and challenging the world's food system. A reduction in Food Waste would lessen the burden on food production.

Lucy Ryan
Head of Food & Beverages,
Bank of Ireland
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Food Waste

Food Waste is a huge global challenge, not alone for the industry, but for everybody as it depletes the earth's limited natural resources. Not only does food production consume significant natural resources, food dumped in landfill sites releases large volumes of methane, a potent greenhouse gas (GHG). Up to one third of all food produced is wasted, with consequent impact on GHG emissions.



What Constitutes Food Waste?

Food loss and waste occurs across the entire food supply chain, from primary production and processing to distribution, retailing, food service and consumers. Simply put, it is food produced for human consumption that is discarded or disposed of along the food supply chain.

Figure 1. Food Supply Chain



Scale of Food Loss and Waste

The United Nations (UN) estimates 931 million tonnes of food is wasted annually or 30% of all food produced; 13% of it is lost between harvest and retail and another 17% wasted in household, food service & retail. Estimates are that 30% of land is used for food that ultimately goes to waste and in the region of 8 - 10% of global GHGs are from Food Waste, a staggering statistic.

[Background - Food Waste and loss reduction | United Nations](#)

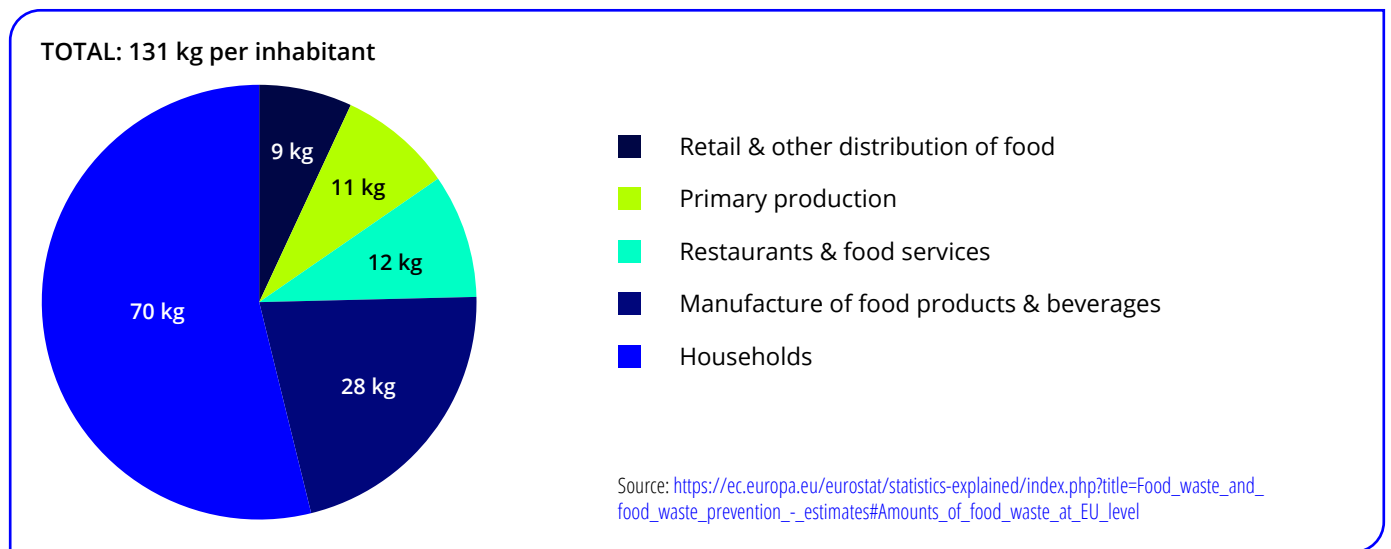
Closer to home, the Environmental Protection Agency (EPA) estimates that more than 25% of food produced is wasted; in Ireland that equates to circa 750,000 tonnes of Food Waste per annum.

[Food Waste | Environmental Protection Agency \(epa.ie\)](#)

Eurostat claims the European Union (EU) generated 58+ million tonnes of Food Waste in 2021 or 131kg/inhabitant. Figure 2 shows the breakdown of that waste

*Various sources including:
United Nations Food Waste Index Report 2021
Boston Consulting Group <https://www.bcg.com/featured-insights/closing-the-gap/food-waste>
Food Waste Facts and Hunger Facts | OzHarvest Sustainability

Figure 2. Food Waste in the EU by main economic sectors, 2021



ESG and Food Waste Reduction Goals

Food Waste has significant environmental, social and economic consequences given its large climate footprint. Tackling this problem is a key step to achieving sustainability.

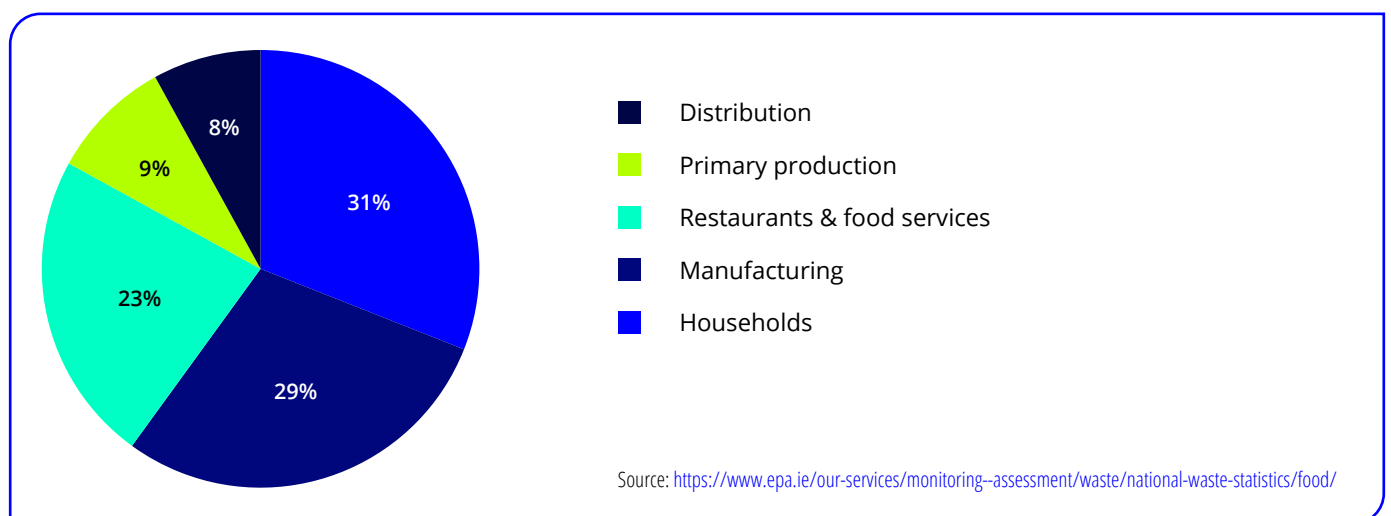
The Irish government has set a target to reduce Food Waste by 50% by 2030, in line with the UN Sustainable Development Goal target (SDG) 12.3. In order for the EU to accelerate its progress towards the SDG Target 12.3, it is asking member states to reduce Food Waste by 10% in production and by 30% per capita jointly in foodservice and at home by 2030.

Ireland's Food Waste Charter

The EPA set up the Food Waste Charter in 2017 to support Ireland's goal to halve the 750,000 tonnes of Food Waste per annum by 2030. To date the group members have mainly been the big grocery retailers.

As of 2023, the charter was revised and expanded to call on all businesses along the food chain to take action by joining the charter. Clearly more needs to be done to improve Food Waste reduction. The starting point would be to cut back on waste food in manufacturing and households as this would have most impact.

Figure 3. Food Waste breakdown by area (IRL) EPA



Technology and Food Waste Initiatives

Increasingly, new technologies are accelerating progress in Food Waste reduction.

- ▶ Enhanced processing, storage and packaging play an important role in food preservation.
- ▶ The use of precision analytics in commercial kitchens with devices on bins to track Food Waste. Real-time analytics enable management to analyse and reduce Food Waste substantially. One social enterprise offering this service is Positive Capture.
- ▶ Other social enterprises include Food Cloud, a tech-based operation connecting businesses with surplus food to charities distributing the food, to those that need it.
- ▶ Too Good to Go is an example of an App that links consumers to restaurants and food stores with surplus food, offering discounts to the user.
- ▶ Partnerships between retailers and food banks/charities have helped reduce waste and support community initiatives.
- ▶ Large UK retailers have encouraged consumers to use the milk 'sniff test' to determine its freshness and removed use by dates.
- ▶ There are an increasing number of commercial and social enterprise cafes, employing surplus food and using various Food Waste prevention methods.

What Next?

Food Waste reduction needs to be a fundamental element of the wider carbon-reduction agenda.

As the pressure to reduce our carbon footprint increases, the UN SDGs, EU targets, and our circular economy ambition, will advance Food Waste reduction across retail and manufacturing. From 2024 Corporate Sustainability Reporting Directive (CSRD) reporting, will bring Food Waste under the spotlight, as companies report the sustainability matters that are material to their company.

Whilst consumer information has increased with the EPA's www.stopfoodwaste.ie campaign and National Stop Food Waste Day (1st March 2024), awareness will need to ramp up to help change purchase and consumption patterns and food storage, as an integral part of sustainable living.

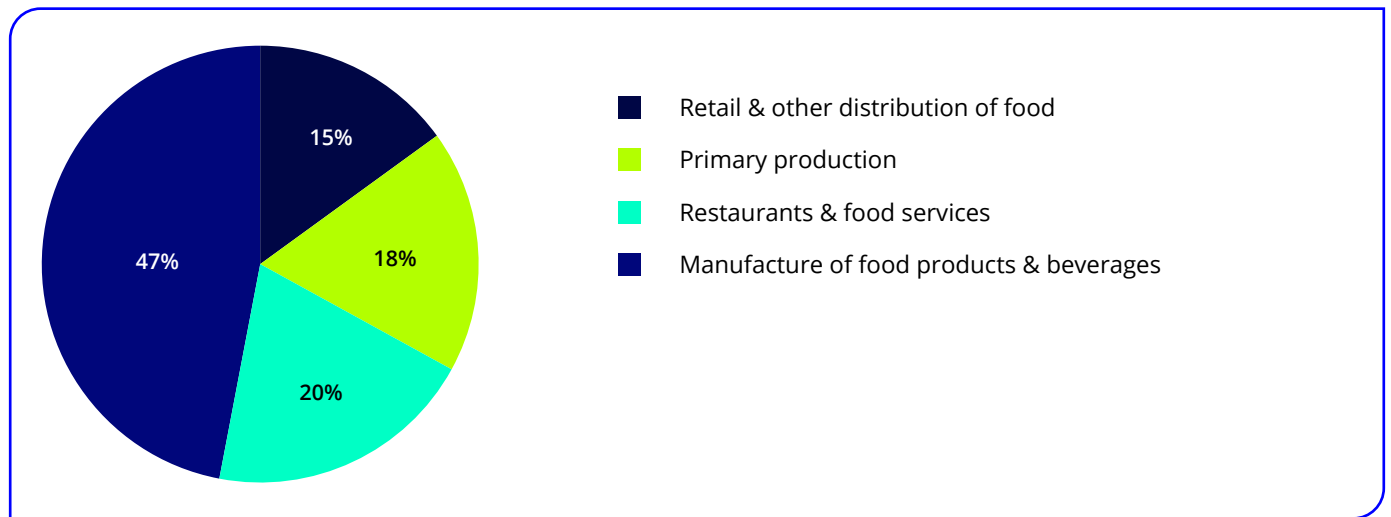
Industry Initiatives

Industry initiatives will play a critical part in reducing waste in manufacturing and re-purpose Food Waste components, such as spent grains, to create new foods. Prevention of waste at source is the most preferred and effective option to reduce Food Waste.

While it may not be possible to completely eliminate Food Waste, a substantial amount of food loss can be avoided with better management systems and forecasting throughout the supply chain. Regarding EPA breakdown (Fig 3), once household waste is removed, the manufacturing of food and beverages make up almost half non-household Food Waste (Fig 4) and changes in this area will have far-reaching success in the battle against Food Waste.



Figure 4. Share of Non-Household Food Waste (EPA)



Further Food Waste Information

[Food Waste | The Nutrition Source | Harvard T.H. Chan School of Public Health](#)

www.champions123.org (relates to UN Food Waste Charter)

[Food Waste and Food Waste prevention - estimates - Statistics Explained \(europa.eu\)](#)

[Food Waste Wiki \(eu-fusions.org\)](#)

[News releases 2023 | Environmental Protection Agency \(epa.ie\)](#)

[Annual Food Waste by select country worldwide | Statista](#)

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