# International Comparison – Food Waste and Policy for its Reduction

## Food Waste around the World

Bold chapter head: Findings of the UN Food Waste Index Report 2021: The Share of Food Waste in the Consumer Sector Exceeds Previous Estimates by 30%

In March 2021, The United Nations Environment Program (UNEP) published its Food Waste Index Report 2021.[[1]](#footnote-1) Its findings show that the UN’s previous estimate of food waste in the consumption segment (household and institutional) fell considerably short. According to the new findings, the extent of global food loss is approximately 1.7 billion tons annually, 30% more than the previous estimate.

This was the first time that the UN updated its decade-old estimate regarding the volume of food wasted globally. At that time, food waste was estimated at approximately 1.3 billion tons annually, approximately one third of all food produced worldwide.

The UN Food and Agriculture Organization (FAO)defines food waste as: “reduction in the quantity or nutritional value of edible portions of food intended for human consumption along the food production value chain.”

Subhead: **The UN Food Waste Index Report quotes findings published in the Food Waste and Rescue in Israel Report by Leket Israel, the Ministry of Environmental Protection and BDO**

The World Food Waste Index[[2]](#footnote-2) was designed to support the UN Sustainable Development Goal: “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.”[[3]](#footnote-3) This indicator complements the food waste goal published by the FAO, which relates to food waste in the agricultural, sorting, packaging and industrial processing sectors.

The UN report states that the extent of international food waste was insufficiently clear in the past, primarily because the prior estimates were based on data from a small number of countries, many of whom used old data. The new UN report presents a current portrait based on vast data concerning worldwide food waste in the retail and consumption (both household and institutional) sectors, and calculates a new estimate of global food waste.

The new report encompasses 84 studies about food waste from many countries. Of these reports, 52% were academic, 33% were conducted by government institutions, 10% by nonprofit organizations and 6% by other agencies. **Regarding Israel, the UN report quotes and relies on the Food Waste and Rescue in Israel Report prepared and published by Leket Israel, the Ministry of Environmental Protection and BDO**.

Food Waste per Capita: International Comparison (kilogram/year)

◼ Production through retail stages ◼ Consumption

Labels: Africa; United States; South America; North Africa; Ireland; Luxembourg; Portugal; France; Europe (north and west); Spain; Denmark; Sweden; Israel; Germany; Italy; Finland; Japan, China and South Korea; Belgium; Austria; Southeast Asia; Holland

Countries around the world to measure and monitor food loss in their territory, while promoting an orderly policy to improve the situation.

In Israel, where expenditures on food are a significant portion of households’ consumer expenses, and the cost of living in Israel presents a considerable challenge, dealing with the issue of food waste is even more important.

Moreover, the situation in which food that has alternative economic value is discarded or destroyed is evidence of a market failure that requires supportive government policy to facilitate more effective utilization of the resource.

Against this background, it is worth our while to examine the leading policy tools being used to reduce food waste rate in countries around the world.

## Policy tools for Reducing Food Waste and Loss Around the World and in Israel in cooperation with the Global Food Donation Policy Atlas*[[4]](#footnote-4)*

Bold chapter head: OECD Countries Use Integrated Policy Tools to Reduce Food Waste

Considering the increase in international recognition of the global food waste problem, the **United Nations FAO and UNEP** have been working to promote complementary international indices for estimating the amount of food wasted worldwide. These indices were intended to create uniformity, help establish baselines for food waste, and assist countries in developing policies to reduce waste and monitor their progress. Indeed, a variety of policy tools are being used around the world, to reduce the amount of food waste. Food waste reduction policies can include varied steps that lead to a decrease in the amount of surplus food, increased food rescue and encouraging the use of composting and anaerobic digestion instead of landfill.

Against this background, work is being done around the world to make data and policy more accessible, thereby fostering a lessening of food waste. Thus, for example, the EU Food Loss and Waste Prevention Hub (FLWPH) conduct surveys and shares its findings regarding relevant policy and legislation in European countries. Moreover, the Harvard Law School Food Law and Policy Clinic (FLPC)[[5]](#footnote-5) together with the Global FoodBanking Network (GFN)[[6]](#footnote-6) launched the Global Food Donation Policy Atlas[[7]](#footnote-7) in February 2019. Their efforts focus on countries that are not members of the European Union, and their goal is to promote policy, legislation and regulation concerning food rescue and reducing food waste, as well as removing obstacles that impede these efforts. The ongoing work of the Atlas includes.

1. Identifying and making accessible legislation related to food rescue and donation in an ever increasing number of countries;
2. Analyzing the most common obstacles to food rescue and donation in these countries;
3. Sharing best practices in order to overcome these obstacles.

In this context, they share a generous amount of information, including in-depth surveys in each country regarding a variety of policy and regulatory areas related to reducing food waste and food rescue. Among other things, the Atlas has identified several key policy tools and the countries in which they are being implemented optimally (best practices).

Best practices according to the Atlas and the European Union

### Food safety for donations

Creating a legal framework that provides clear guidelines regarding standards for food safety of donated or rescued food.

**India**—*Food Safety and Standards (Recovery and Distribution of Surplus Food) Regulation* [[8]](#footnote-8)

Specifies the responsibility of food donors and organizations distributing surplus food, including designating the Food Safety and Standards Authority as the guiding authority.

Defines requirements for labeling donated food.

Obligation to record and monitor food surpluses.

**Israel** — *Law for the Protection of Public Health (Food)* 5776-2015[[9]](#footnote-9)

Section 11 of the law regulates the use of leftover food.

Section 159 exempts non-profit food distribution organizations from needing licenses for manufacturing, transporting and storing food.

Section 162 permits food distribution organizations to use food that has passed its “best before” date, if it is not a sensitive type of food, and they have received a written authorization from the manufacturer to use the food after the “best before” date.

### Protection from legal liability for food donations

Legislation that exempts organizations that donate, store, transport and deliver donated food from criminal or civil liability for the any damage caused, as long as they act in accordance with the law and are not negligent.

**United States**— *The Bill Emerson Good Samaritan Food Donation Act* (1996)[[10]](#footnote-10)

Federal protection from civil and criminal liability for food donors and non-profit organizations that distribute donated food, subject to certain conditions (that the food was donated in good faith to an organization that distributes food to needy people, at no charge, and meets safety standards).

Some states grant broader protections for more kinds of donations: Arizona, California, Louisiana, Massachusetts, Minnesota, New Hampshire, New Mexico and Vermont protect direct donations to people experiencing food insecurity; California, Nevada and Oregon offer protection regardless of food labelling; California and Massachusetts offer protection for food donations that are past their expiration date.

In 2021, an amendment was submitted to both the Senate and the House of Representatives, which would expand the feasibility of food donations across the US. The amendment would allow direct donations to individuals, e.g., from grocery stores, school cafeterias, etc. but is yet to be approved.

**Israel** — *Food Encouragement Donation Act* 5779-2018

The law encourages the rescue of surplus food by exempting those who donate food to organizations that distribute food, and those that transport, store or distribute donated food from civil or criminal liability for damages caused as a result of the food donation, if they comply with food safety standards and are not negligent.

### Expiration Dates

Complementary use of three policy tools:

* Regulations that define two types of the labels for food products: those based on food safety and those based on food quality. In the first instance, consuming the food after date appearing on the label might be dangerous, but not in the second instance.
* Legislation that allows selling and donating food even after the date on a quality-based label.
* Launch a campaign to educate consumers, in order to prevent confusion regarding expiration dates.

**Great Britain** — “*Label better, less waste”*[[11]](#footnote-11)

In accordance with recommendations in the UN Codex Alimentarius, adopted a policy that divides foods into two groups and defines a safety-based label (“use by”) or quality based (“best before”) for each product.[[12]](#footnote-12)

This policy explicitly forbids sale or donation of food after a safety date (“use by”) but explicitly permits sale or donation of food after a quality date (“best before”).

The British government, in cooperation with the organization WRAP,[[13]](#footnote-13) has launched several campaigns to educate the public about strategies for reducing food waste, including about the significance of product dates.

**Israel** —

The law states that food may not be sold/donated after its expiration dates (regardless of the whether it is a safety date or a quality date).

However, section 12 of the Public Health Protection Law permits using food after this date, in certain situations. Section 162 of the same law discusses the feasibility of distributing food that has passed its expiration date by NPOs.

In 2017, the standard for labelling food packaged in Israel was re-examined. The Ministry of Environmental Protection and the Ministry of the Economy worked with the Standards Institute to promote a process for improving labelling and making it clearer to consumers. The change is yet to be approved.

### Tax Incentives

* Tax incentives create an economically competitive alternative to discarding edible food.
* An exemption from Value Added Tax on food donated to food banks as a way for removing potential obstacles.

**United States** – Internal Revenue Code[[14]](#footnote-14)

Tax incentives for businesses in order to encourage the donation of surplus food.

The law permits double tax credits for food donations:

* + **General tax deduction** equal to the cost of acquiring the food;[[15]](#footnote-15)
	+ **Increased tax deduction** as an additional incentive, allows the food donor to deduct either (a) twice the cost of purchasing the food that was donated or (b) the cost of the food that was donated plus half of the profit expected from selling the food, if it had been sold at fair market value. This deduction can reach twice the general deduction, with a business being entitled to deduct up to 15% sign of its taxable income for food donations.[[16]](#footnote-16)

**Israel** –

The Income Tax Ordinance states that donation of food with a value above NIS 190 is entitled to an income tax credit for 35% of the value of the donation.

In 2017, private legislation ***granting a tax credit for food donations***[[17]](#footnote-17) was submitted to the Knesset for preliminary consideration. The legislation would grant a tax credit worth 50% of the value of the donation.

The purpose of the bill is to encourage manufacturers, marketers, importers, and others working in the food industry, and growers of agricultural produce and animal-based food products, to donate food, including surplus food, to NPOs that distribute food, at no charge, to people experiencing food insecurity, by offering a tax credit.

In 2021, similar private legislation amending the tax ordinance was submitted to the Knesset for preliminary consideration.[[18]](#footnote-18)

To date, neither of these proposals has been approved.

### Obligation to donate surplus food

Requiring food suppliers to engage with a NPO for distribution of unsold food that is suitable for human consumption.

**France** – Legislation to prevent food waste

The Combating Food Waste Law 2016[[19]](#footnote-19) requires large supermarket chains (stores with an area in excess of 400 square meters) ‎to donate surplus food to food banks rather than discarding or destroying it. Chains that violate the law are liable to a fine ranging from €3750 to €75,000.

There was an increase of 20% in food donations from supermarket chains following enactment of this law.[[20]](#footnote-20)

The Egalim Law[[21]](#footnote-21) enacted in 2019 expanded the obligation to large catering establishments (those serving more than 3000 meals/day), food manufacturers and large wholesalers (those with a turnover of more than €50 million).

**Israel** –

Food suppliers are not required to engage with an NPO for redistribution of unsold food suitable for human consumption.

In 2019, a private bill, *Distribution of* *Surplus, Unsold Food Suitable for Human Consumption, 5769-2019* was submitted to the Knesset for preliminary consideration. This bill would require food suppliers to engage with food rescue organizations for distribution of unsold edible food. The law would also regulate the conditions for the transfer of surplus food to its destination. The effort to promote this legislation was unsuccessful.

### Prohibition / taxation of sending organic waste landfill

Prohibiting / taxing the disposal of organic waste in landfills as a tool for influencing business behavior.

**United** **States** – Legislation to prohibit large waste producers from sending organic waste to landfill

In California, Connecticut, Massachusetts, Rhode Island and Vermont there are laws that ban disposing of food waste in landfills.

In 2012, Vermont enacted a Universal Recycling Law[[22]](#footnote-22) that prohibits disposing of food waste in landfills. The law called for gradual implementation, concluding with complete implementation in 2020, for both businesses and residents.

According to the Vermont Food Bank this law lead to an increase in food donations worth approximately $40 million.

In Massachusetts, disposing of food waste in landfills[[23]](#footnote-23) is forbidden for businesses creating more than one ton of food waste each week. Research conducted in 2016[[24]](#footnote-24) found that this ban yielded economic activity worth $175 million and created more than 900 jobs with companies transporting food, rehabilitation organizations and other employers.

**Israel** –

No prohibition on disposing of organic waste in landfill.

**Scotland** – Incremental fee on disposal of organic waste[[25]](#footnote-25)

Establishes two tariffs for disposing of waste in landfill: the standard fee is currently ₤98.6/ton of waste with a lower rate of ₤3.15/ton for waste that is less likely to produce greenhouse gases and pollution (containing a low percentage of organic matter, not recyclable and not including hazardous substances, etc.).

The graduated fee is intended to decrease the amount of food disposed of in landfill according to the hierarchy of food usage.

**Israel** –

There has been a fee for landfill disposal of waste since 2007.[[26]](#footnote-26) Provisions of this law require that landfill operators pay for each ton of waste sent to landfill. The price of landfill disposal[[27]](#footnote-27) in Israel is lower both the world average, and low for the type of treatment. The disposal fee in Israel applies to all types of waste and there is no incentive for not disposing of organic waste in landfills. There is a voluntary mechanism that permits municipalities and local authorities to charge businesses a specific fee for collecting surplus commercial waste.[[28]](#footnote-28) The criteria for collecting this fee for commercial waste applies to all businesses, and the level of the payment is not regulated.

### Government grants and incentives funding grants or incentive programs on the national or local level

**United States** –

The Federal Emergency Food Assistance Program (TEFAP) allocates $100 million and $500 million dollars each year, for administrative support and food rescue, respectively, by local organizations.

The Federal grant program also supports food banks and food rescue efforts.

Several individual states also allocate funds to purchasing food for emergencies.

**Israel** – The 2022 Food Security Initiative included recognizing food rescue as an alternative to purchasing.

### National goal for reducing food waste

Setting a national goal for reducing food waste by 50% by 2030 in accordance with the UN's with the sustainability targets established by the UN for 2030.

**The United States, Canada, most European countries and Australia** have declared a goal of reducing food waste by 50% by 2030.

**Israel** has not established an official national goal for reducing food waste.

### National strategy for reducing food waste

Adopting a comprehensive national framework for reducing food waste along the entire supply chain. The strategy would dictate a clear comprehensive national policy for the purpose of reducing food waste as well as promoting and encouraging food rescue. It could include all of the policy tools listed above.

**Australia** – National Food Waste Strategy 2017[[29]](#footnote-29)

* Set a goal of reducing food waste by 50% by 2030
* In order to do this, a comprehensive feasibility study on halving food waste by 2030 was conducted. This research found that the goal could be accomplished in seven years, if the following conditions are met:

Significant investment in innovation

Offering incentives

Adopting strict regulation

Promoting voluntary commitments to reduce food waste

Involvement of the food industry and civil society.

* Accordingly, the National Food Waste Strategy was written and published by the Australian Department of Agriculture Water and Energy (DAWE) focusing on four areas: promoting supportive policy, improving performance in the business sector, market developments and behavioral change.
* The supportive policy focuses on four areas

Creating a national baseline for food waste and a methodology for measuring its reduction compared to the goal;

Identifying relevant fields for focused investment;

Promoting voluntary commitments to reduce food waste;

Promote legislation supporting food waste and food rescue.

**Israel** is yet to develop comprehensive national strategy for the purpose of reducing food waste on the national level.

Summary of Central Policy Tools for Reducing Food Waste and Encouraging Food Rescue
 in Selected Countries

Based on the Global Donation Policy Atlas and European Union

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Food safety for donations** | **Protection from legal liability for food donations** | **Date labeling** | **Tax incentives** | **Requirement to donate or tax on food waste** | **Government grants and incentives** | **Goal reduce food waste by 50% by 2030** | **National strategy to reduce food waste** | **Number of policy tools being used in the country** |
| France | V | V | V | V | V | V | V | V | 8 |
| Canada |  | V | V | V | V | V | V | V | 7 |
| Germany | V |  | V | V | V | V | V | V | 7 |
| Italy | V | V | V | V | V | V |  | V | 7 |
| Australia |  | V | V | V |  | V | V | V | 6 |
| Great Britain | V |  | V |  | V | V | V | V | 6 |
| Denmark | V |  | V | V | V | V |  | V | 6 |
| Belgium |  |  | V | V | V | V | V | V | 6 |
| Holland |  |  | V | V | V | V | V | V | 6 |
| U S | V |  |  | V | V | V | V |  | 5 |
| Spain |  |  | V | V | V |  | V | V | 5 |
| Mexico | V | V | V | V | V |  |  |  | 5 |
| Portugal | V |  | V | V |  |  | V | V | 5 |
| Australia |  | V | V |  |  | V | V | V | 5 |
| Chile |  |  | V | V | V |  |  | V | 4 |
| C:\Users\efratg\Desktop\Flag_of_Israel_svg.png | V | V |  | V |  | partial |  |  | 4 |
| Finland | V |  | V |  |  |  | V |  | 3 |
| Sweden |  |  | V |  |  |  | V | V | 3 |
| % of countries using this policy tool | 56% | 39% | 89% | 78% | 67% | 67% | 72% | 78% | 56% |

Sources: Global Donation Policy Atlas,[[30]](#footnote-30) FLWPH,[[31]](#footnote-31) Food redistribution in the EU,[[32]](#footnote-32) BDO analysis

Among the country surveyed, it was found that 89% regulate the expiration dates printed on food products; 78% offer tax incentives for food donations and have a national food waste reduction strategy; 72% have established a food waste reduction goal for 2030; 67% offer government grants for food donations and require that businesses donate food and/or tax discarding food waste; 56% of the countries have food safety procedures for donations and 39% offer protection from legal liability for food donations.

A study conducted in 2020 by Wageningen Food & Biobased Research,[[33]](#footnote-33) which was commissioned by the Dutch Ministry of Agriculture, Nature and Food Quality, examines the influence of national regulatory measures in Europe on the reduction of food waste. The researchers found that in the countries surveyed above, financial tools have the widest influence on reducing food waste. Taxation for landfill disposal of organic waste has the greatest impact, followed by an exemption from Value Added Tax on food donations to food banks, as a means for removing obstacles to potential donations.

Although the issue of food waste has received attention in Israel during recent years with the enactment of the Food Donation Law in 2018, the lack of an orderly government policy to encourage the reduction of food waste and food rescue means that Israel remains far from realizing its potential to reduce food waste and rescue food while also reducing inequality and food insecurity among its population.

Proposed infographic for the table above

International Ranking – Supportive Policy

Number of Policy Tools being Implemented

Country labels: France, Canada, Germany, Italy, Australia, Great Britain, Denmark, Belgium, Holland, United, States, Spain, Mexico, Portugal, Australia, Chile, Israel , Finland, Sweden

# Policy Recommendations for Reducing Food Waste and Encouraging Food Rescue

Bold chapter head: The Time is Ripe to Adopt International Best Practices and an Orderly Government Policy for Reducing Food Waste and Encouraging Food Rescue in Israel

The 2021 National Food Waste and Rescue Report, similar to preceding reports, demonstrates the significant economic, social, and environmental benefits of food rescue. The comparative review of recommended policies and best practices used to reduce food waste internationally highlights the need to use food rescue as national policy tool.

**Economically**: This is a clear case of market failure. At market prices, rescuing food is not economically viable. However, when taking into account the true value and nutritional benefits, food rescue becomes highly worthwhile.

**Socially**: Rescuing food and donating it to those in need would reduce inequality and increase the food security of the country’s residents.

**Environmentally**: This effort would save many energy, water, land, and chemical resources, and would reduce greenhouse gas and air pollutant emissions, as well as the amount of waste sent to landfills

1. **Set a National Food Rescue Goal** – The goal should be to reduce food waste by 50% by the year 2030, in accordance with principles laid out by the UN.

Setting a national goal will place the issue on the national agenda, and more importantly will create governmental commitment to act towards the realization of this objective.

In addition to setting a goal, it is necessary to establish measurement and monitoring tools to facilitate ongoing review of compliance with the goal.

1. **Develop a National Plan for Food Rescue** – The plan should address food waste and rescue at all stages of the value chain and include the necessary operational, budgetary, and regulatory conditions and incentives for gradually achieving the national food waste reduction and rescue goal. Implementing the plan would require the significant involvement of government ministries and it should be coordinated by the Prime Minister’s Office or the Council for Food Security. For example:

**The Ministry of Environmental Protection** would examine, among other things, policy tools for reducing food waste and promoting food rescue as a means for meeting emission targets in the fields of waste, industry, and agriculture. Tools could include paying for commercial waste, a mechanism for pricing the carbon created by landfilling, etc., in accordance with the Ministry’s waste policy.

**The Ministry of Agriculture** would review an incentive and reimbursement policy for compensating farmers and growers who donate food instead of destroying it.

**The Ministry of Economy** would review an incentive and reimbursement policy for compensating manufacturers who donate healthy food instead of destroying it. In addition, they would examine ways to introduce dynamic pricing in supermarket chains, in order to reduce the loss of food as its expiration date approaches. Furthermore, new regulations regarding expiration dates are necessary.

**The Ministry of Welfare and Social Security** would examine the possibility of financially supporting food waste reduction and food rescue projects and activities. These types of projects would enable the Ministry to support broader sections of the population experiencing food insecurity without having to allocate additional budgets.

**The Ministry of Justice** would look into the development of legal instruments to support government ministries involved supporting food rescue, preventing food from being destroyed and reduction at the source. Legal instruments could include legislating laws that encourage/oblige public bodies and large economic enterprises to donate surpluses, creating shelf-life extension protocols, and dynamic pricing, etc.

**The Ministry of Education (in cooperation with the Ministry of Environmental Protection)** would introduce educational tools and programs, beginning in preschool, that encourage healthy, sustainable nutrition, the prevention of food waste and encouraging food rescue, while teaching pupils about the environment and sustainable practices, with an emphasis on food and food rescue.

**The Procurement Administration** would examine the possibility of obligating private entities participating in government tenders for providing services to the state, that have rescuable food sources (not only in the food industry), to engage with recognized food rescue NPOs as a prerequisite for entering into contract. Likewise, the possibility should be examined (**together with the Government Companies Authority**) of obligating state-funded bodies that operate a kitchen feeding over 1,000 people a day (either directly or through a subcontractor) to engage with a recognized food rescue NPO as a condition for receiving a budget from the government (including security services, school catering operations, government companies, etc.).

1. **Reevaluate Expiration Dates**
* Enact regulations that establish only two types of the labels for food products: those based on food safety and those based on food quality. The regulations will state that consuming food with a safety-based date after the date appearing on the label might be dangerous but that it would not be dangerous in the case of food with a quality-based label.
* Promote legislation that allows selling and donating food after the date on quality-based labels, as per the British model.
* Launch a campaign to educate consumers, in order to prevent confusion regarding expiration dates.
1. **Tax Benefits** – Promote increasing the tax credit for food donations, as an incentive to encourage manufacturers, marketers, importers, and others working in the food industry, and growers of agricultural produce and animal-based food products to donate food, including surplus food, to engage with NPOs that distribute food at no charge to the population experiencing food insecurity.
2. **Mandatory Food Donations** –
* Promote legislation requiring the donation of surplus food.
* The legislation must mandate a requirement for all manufacturers, suppliers and marketers of food, including institutional caterers, to donate unsold food that is fit for human consumption, or alternately donate it for animal feed or to industry in order to reduce food waste.
* The legislation will regulate the transfer of the surplus food to its destination.
1. **Examine** **a Ban on Transferring Organic Waste to Landfills** – Similar to the practice in some US states, we recommend forbidding manufacturers from sending more than a certain amount of organic waste to landfill each month, and require them to find another solution – composting, anaerobic digestion or donation – for the remainder. This would require establishing criteria determining which businesses and organizations are covered by this prohibition and the threshold above which the prohibition will apply.

Alternately, **examine payment for commercial waste** – A voluntary mechanism currently allows local authorities to charge businesses a special fee for the collection of commercial waste.[[34]](#footnote-34) This mechanism should be made binding on all Israeli municipalities. To this end, criteria must be established for determining the payment charged all businesses for commercial waste collection. The amount should be set at a level **that creates an economic incentive to reduce waste disposal in general, and food waste from industry, retailers, restaurants, hotels, banquet halls, etc. in particular**. Any business that is the source of the organic waste will be required to bear the cost of its treatment. The payment will create an incentive for the food industry, food distributors and caterers to donate the food rather than discarding it.

1. **Multi-year ongoing governmental support for efforts to reduce food waste / encourage food rescue –**
* Allocate a budget for ongoing efforts and initiatives for reducing food waste/encouraging for rescue.
* Allocate funding for food rescue and food security as part of the economic preparations for emergencies, crises and pandemics.
1. **Remove obstacles to reducing food waste** – Advance a comprehensive examination of existing Israeli law and amend it so to prevent food waste and encourage food rescue.
1. United Nations Environment Program (2021). Food Waste Index Report 2021, Nairobi [↑](#footnote-ref-1)
2. United Nations Environment Program (2021). Food Waste Index Report 2021, Nairobi [↑](#footnote-ref-2)
3. Goal indicator 12.3 in https://www.fao.org/sustainable-development-goals/indicators/1231/en/ [↑](#footnote-ref-3)
4. https://atlas.foodbanking.org/atlas.html [↑](#footnote-ref-4)
5. https://hls.harvard.edu/clinics/in-house-clinics/food-law-and-policy-clinic/ [↑](#footnote-ref-5)
6. https://www.foodbanking.org [↑](#footnote-ref-6)
7. https://atlas.foodbanking.org/atlas.html [↑](#footnote-ref-7)
8. https://www.fssai.gov.in/upload/uploadfiles/files/Gazette\_Notification\_Surplus\_Food\_06\_08\_2019.pdf [↑](#footnote-ref-8)
9. <https://www.nevo.co.il/law_html/law01/049_062.htm#med1> [↑](#footnote-ref-9)
10. https://www.law.cornell.edu/uscode/text/42/1791 [↑](#footnote-ref-10)
11. https://wrap.org.uk/sites/default/files/2020-07/WRAP-Food-labelling-guidance.pdf [↑](#footnote-ref-11)
12. From product design and development through sale/distribution. [↑](#footnote-ref-12)
13. Water and Resources Action Programme [↑](#footnote-ref-13)
14. <https://www.law.cornell.edu/uscode/text/26/170> [↑](#footnote-ref-14)
15. I.R.C. § 170(e)(1); 26 C.F.R. § 1.170A–4(a)(1) (2018) [↑](#footnote-ref-15)
16. 26 C.F.R. 1.170A-4A(b)(2)(ii)(A) (2019) [↑](#footnote-ref-16)
17. Amendment to Income Tax Ordinance (Credit for Food Rescue) 5778-2017 [↑](#footnote-ref-17)
18. https://main.knesset.gov.il/Activity/Legislation/Laws/Pages/LawBill.aspx?t=lawsuggestionssearch&lawitemid=2159264 [↑](#footnote-ref-18)
19. https://www.legifrance.gouv.fr/loda/id/JORFTEXT000032036289/ [↑](#footnote-ref-19)
20. https://chlpi.org/news-and-events/news-and-commentary/food-law-and-policy/webinar-review-waste-bans-penalties [↑](#footnote-ref-20)
21. https://www.legifrance.gouv.fr/loda/id/JORFTEXT000037547946/2021-03-25/ [↑](#footnote-ref-21)
22. https://dec.vermont.gov/waste-management/solid/universal-recycling [↑](#footnote-ref-22)
23. https://www.mass.gov/guides/commercial-food-material-disposal-ban [↑](#footnote-ref-23)
24. http://www.mass.gov/eea/docs/dep/recycle/priorities/orgecon-study.pdf [↑](#footnote-ref-24)
25. https://www.gov.scot/policies/taxes/landfill-tax/ [↑](#footnote-ref-25)
26. According to the Maintenance of Cleanliness Law, amendment 9. [↑](#footnote-ref-26)
27. NIS 111.34/ton as of January 2022 [↑](#footnote-ref-27)
28. Based on the principle that the polluter pays, according to uniform criteria for “excess waste” as defined by the Ministry of the Interior. [↑](#footnote-ref-28)
29. National Food Waste Strategy: Halving Australia’s Food Waste by 2030, Dep’t of Environ. & Energy 3 (2017), https://www.environment.gov.au/system/files/resources/4683826b-5d9f-4e65-9344-a900060915b1/files/national-food-waste-strategy.pdf [↑](#footnote-ref-29)
30. https://atlas.foodbanking.org/country-research.html [↑](#footnote-ref-30)
31. https://ec.europa.eu/food/safety/food\_waste/eu-food-loss-waste-prevention-hub/ [↑](#footnote-ref-31)
32. Food redistribution in the EU - Mapping and analysis of existing regulatory and policy measures impacting food redistribution from EU Member States, European Commission [↑](#footnote-ref-32)
33. https://edepot.wur.nl/529888 [↑](#footnote-ref-33)
34. Based on the principle that the polluter pays, according to uniform criteria for “excess waste” as defined by the Ministry of the Interior. [↑](#footnote-ref-34)