# International Comparison – Food Loss and Policy for its Reduction

## Food Loss around the World

Bold chapter head: Findings of the UN Food Loss Index Report 2021: The Share of Food Loss at the Consumer Level Doubles Previous Estimates

In March 2021, The United Nations Environment Program (UNEP) published its Food Loss Index Report 2021.[[1]](#footnote-1) Its findings show that the UN’s previous estimate of food loss in the consumption sector (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 of 1.3 billion tons, or one-third of all food produced worldwide.

This was the first time that the UN updated its decade-old estimate of the volume of food loss globally.

The UN Food and Agriculture Organization (FAO)defines food loss as: a “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 Loss Index Report quotes findings published in the *Food Loss and Rescue in Israel* Report by Leket Israel, the Ministry of Environmental Protection and BDO**

The World Food Loss Index[[2]](#footnote-2) was designed to support the UN Sustainable Development Goal: “By 2030, halve per capita global food loss 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 loss goal published by the FAO, which relates to food loss in the agricultural, sorting, packaging, and industrial processing sectors.

The UN report states that the extent of international food loss was underestimated in the past, primarily because the prior estimates were based on data from a small number of countries, many of which used outdated data. The new UN report presents a current portrait based on a broad range of data concerning worldwide food loss in the retail and consumption (both household and institutional) sector and calculates a new estimate of global food loss.

The new report encompasses 84 studies about food loss 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 Loss and Rescue in Israel* Report prepared and published by Leket Israel, the Ministry of Environmental Protection and BDO**.

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

◼ Production through retail stages ◼ Consumption

Source: UNEP, FAO and BDO analyses; data for Israel is from the BDO estimates

Labels from left to right: 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

The findings of the UN report, as reflected in the graph above, reveal that per capita food waste in the household sector in Israel is similar to that of the United States, and less than in Africa. However, it is also evident that per capita food waste in the household sector in Israel is higher than in Europe.

There are several possible explanations for this. Firstly, Israeli households tend to consist of a larger number of people. Research on food waste in Israeli households,[[4]](#footnote-4) conducted by Professor Ofira Ayalon, Professor Efrat Elimelech and Dr. Eyal Ert, shows that the larger the household, the more food it wastes. Their research also found that households waste less food when there is waste separation done at the home, which is generally not practiced in Israel unlike other countries.

It must be noted that the UN report itself does not provide any explanation for the variations in per capita food waste in different countries.

The UN has defined dealing with food waste as a key issue for promoting sustainability and reducing food insecurity around the world. In its new report, the UN determined that some opportunities for reducing food waste were not utilized because previous estimates of international food waste were unreliable. Therefore, the UN report concludes that countries around the world must measure and monitor food waste in their territory while promoting effective policies for dealing with the problem.

In Israel, where expenditure on food isa significant portion of a household’s consumer expenses, coupled with the high cost of living in Israel, it is especially challenging and highlights the importance of dealing with the issue of food loss and waste.

Moreover, discarding or destroying food that still has alternative economic value 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 loss rates in countries around the world.

## Policy tools for Reducing Food Loss and Waste Around the World and in Israel in cooperation with the Global Food Donation Policy Atlas*[[5]](#footnote-5)*

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

Considering the increase in international recognition of the global food loss problem, the **United Nations FAO and UNEP** have been working to promote complementary international indices for estimating the amount of food loss worldwide. These indices were intended to create uniformity, help establish baselines for food loss, and assist countries in developing policies to reduce loss and monitor their progress. Indeed, a variety of policy tools are being used around the world, to reduce the amount of food loss by decreasing the amount of surplus food, increasing food rescue, and/or encouraging the use of composting and anaerobic digestion instead of landfill.

Work is being done around the world to make data and policy more accessible, thereby encouraging efforts to reduce food loss. For example, the EU Food Loss and Waste Prevention Hub (FLWPH) conducts surveys and shares its findings on relevant policies and legislation in European countries. Moreover, the Harvard Law School Food Law and Policy Clinic (FLPC)[[6]](#footnote-6) together with the Global Food Banking Network (GFN)[[7]](#footnote-7) launched the Global Food Donation Policy Atlas[[8]](#footnote-8) in February 2019. Conducting comparative legal research in dozens of countries around the world, their goal is to map the global food donation policy landscape and promote best practices for food rescue and food waste mitigation. The ongoing work of the Atlas includes:

1. Identifying and making accessible legislation related to food rescue and donation in an 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 whilst providing technical assistance for policy implementation in certain partner countries.

They share a generous amount of information, including in-depth legal analysis for each country regarding a variety of policy and regulatory areas related to reducing food loss and increasing food rescue. The Atlas has identified several key policy tools and highlights countries in which they are being implemented optimally.

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* [[9]](#footnote-9)

* 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.
* Creates an obligation to record and monitor food surpluses.

**Israel** — *Law for the Protection of Public Health (Food)* 5776-2015[[10]](#footnote-10)

* 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 any damage caused, if they act in accordance with the law and are not negligent.

**United States**— *The Bill Emerson Good Samaritan Food Donation Act* (1996)[[11]](#footnote-11)

* 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, Massachusetts, Minnesota, Nevada, New Hampshire, New Mexico, Vermont, Rhode Island and Tennessee protect direct donations to people experiencing food insecurity; Alaska, Arizona, Hawaii, Kentucky, Maine, Massachusetts, New Hampshire, New Jersey, Ohio, Rhode Island and Tennessee explicitly allow post-date donations.
* 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

In order to reduce confusion about the meaning of date labels affixed to food products—and ensure safe, edible food that is past its expiration date is donated rather than discarded—best practice policy includes complimentary use of three policy tools:

* Regulations that define two options for date labels on food products: one based on food safety (“use by”) and one based on food quality (“best by”). Only in rare instances when consuming a food after a specific period actually becomes dangerous as the food poses a safety hazard would the first label be used. Otherwise, the food would use a quality-based label.
* Legislation that explicitly allows donating food after the quality-based date has passed, although not for safety-based dates.
* Launch a campaign to educate consumers about the meaning of date labels in order to prevent confusion regarding expiration dates and reduce needless food waste.

**Great Britain** — “*Label better, less loss”*[[12]](#footnote-12)

* 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.[[13]](#footnote-13)
* 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,[[14]](#footnote-14) has launched several campaigns to educate the public about strategies for reducing food loss, including about the significance of product dates.

**Israel** —

* There are two types of expiry dates in use, “use by” and “best before” that relate to food safety and food quality, respectively.
* 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 labeling packaged food in Israel was re-examined. The Ministries of Environmental Protection and Economy proposed updates to the language, in order to reduce food waste and raise public awareness of the different labels. The updates included comparing the products currently exempt from being labeled with an expiration date to those exempt by the European Directive, and considering expiration dates consisting only of a month and year, or even just a year, depending on the product and its sensitivity, as well as promoting a public information campaign explaining the markings and their use. Some of the proposed updates were approved, but in practice a manufacturer can mark a full expiration date on any product, and there has been no change in the customary markings.

### 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[[15]](#footnote-15)

* 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;[[16]](#footnote-16)
	+ **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% of its taxable income for food donations.[[17]](#footnote-17)

**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.

### Obligation to donate surplus food

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

**France** – Legislation to prevent food loss

* The Combating Food Loss Law 2016[[18]](#footnote-18) 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.[[19]](#footnote-19)
* The Egalim Law[[20]](#footnote-20) 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.

### Prohibition/ taxation of sending organic waste to 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[[21]](#footnote-21) 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 led to an increase in food donations worth approximately $40 million.
* In Massachusetts, businesses that creating more than one ton of food waste/week are forbidden to dispose of food waste in landfills.[[22]](#footnote-22) Research conducted in 2016[[23]](#footnote-23) 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[[24]](#footnote-33)

* Establishes two tariffs for disposing of waste in landfill: the standard fee is currently ₤98.6/ton; and 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.[[25]](#footnote-34) Provisions of this law require that landfill operators pay for each ton of waste sent to landfill. The price of landfill disposal[[26]](#footnote-35) in Israel is lower than both - the world average, and relative to other treatment types. 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.[[27]](#footnote-36) Criteria for this fee collection and amount is still not regulated.

### Government grants and incentives

Grants and incentive programs funded at the national or local level offer an important resource for food donation initiatives.

**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. The text of the tender defines “rescued food” and edible food with nutritional and health value that is saved from destruction, including agricultural produce that remains unpicked in the field or unsold in markets and shops, as well as agricultural produce that has aesthetic flaws or is misshapen.

### National goals for reducing food loss

Setting a national goal for reducing food loss by 50% by 2030 in accordance with the UN's SDG.

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

**Israel** adopted the UN Sustainability goals, including a target for reducing food waste, in 2015. An official national goal for food loss reduction has not been established.

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### National strategy for food loss reduction

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

**Australia** – National Food Loss Strategy 2017[[28]](#footnote-37)

* Set a goal of reducing food loss by 50% by 2030
* In order to do this, a comprehensive feasibility study on halving food loss 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 loss
				+ Involvement of the food industry and civil society
* Accordingly, the National Food Loss 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 private sector, market development and behavioral change.
* The supportive policy focuses on four areas
	+ - * + Creating a national baseline for food loss and a methodology for measuring its reduction;
				+ Identifying relevant fields for focused investment;
				+ Promoting voluntary commitments to reduce food loss;
				+ Promoting legislation supporting food loss and food rescue.
				+ To date, progress towards these goals is yet to be measured.

**Israel** is yet to develop comprehensive national strategy for the purpose of food loss reduction on the national level. However, in October 2021, the government approved a 100-Step Climate Action Plan, which includes a chapter dealing with food systems.

The Waste Management Policy published by the Ministry of Environmental Protection in January 2021 includes sections related to reducing waste at the source, including food waste. The Ministry of Environmental Protection is currently developing a plan for implementing this strategy.

Summary of Central Policy Tools for Food Loss Reduction and Food Rescue Encouragement
 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 loss** | **Government grants and incentives** | **Goal reduce food loss by 50% by 2030** | **National strategy to reduce food loss** | **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 |
| 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 |
| Australia |  | partial | V | V |  | V | V | V | 5.5 |
| U S | partial | V |  | V | partial | V | V |  | 5 |
| Spain |  |  | V | V | V |  | V | V | 5 |
| Portugal | V |  | V | V |  |  | V | V | 5 |
| Austria |  | V | V |  |  | V | V | V | 5 |
| Mexico | V | partial | V | V | V |  |  |  | 4.5 |
| Chile |  |  | V | partial | V |  |  | V | 3.5 |
| Finland | V |  | V |  |  |  | V |  | 3 |
| Sweden |  |  | V |  |  |  | V | V | 3 |
| C:\Users\efratg\Desktop\Flag_of_Israel_svg.png | partial | V |  | V |  |  |  |  | 2.5 |
| % of countries using this policy tool | 56% | 44% | 89% | 78% | 67% | 61% | 72% | 78% |  |

Sources: Global Donation Policy Atlas,[[29]](#footnote-38) FLWPH,[[30]](#footnote-39) Food redistribution in the EU,[[31]](#footnote-40) BDO analysis

Among the countries 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 loss reduction strategy; 72% have established a food loss reduction goal for 2030; 67% require that businesses donate food and/or tax discarding food waste; 61% offer government grants for food donations; 56% of the countries have food safety procedures for donations and 44% offer protection from legal liability for food donations. By implementing varied policy tools for reducing food loss, Great Britain has reported a 27% decrease in food loss per capita (after the agricultural stage) from 2008 (the baseline year) to 2018. By 2019, Holland had recorded a 29% reduction of food waste in the consumer stage, compared to 2010. The European Commission is expected to publish interim reports for all European nations later this year.

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A study conducted in 2020 by Wageningen Food & Biobased Research,[[32]](#footnote-41) 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 loss. The researchers found that among the policy tools surveyed above, financial tools have the widest influence on reducing food loss. Taxation for landfill disposal of organic loss 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 loss has received attention in Israel during recent years with the enactment of the Food Donation Law in 2018, the lack of an expedient government policy to encourage the reduction of food loss and food rescue means that Israel remains far from realizing its potential to reduce food loss, rescue more food, and reduce 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

## Developments in Israel: Government Action on Food Waste and Loss

Israel, as previously mentioned, remains far from realizing its potential for reducing food waste and increasing food rescue, because it lacks an expedient government policy that encourages reducing food waste and promotes food rescue. Despite this lack of official government policy, several ministries are working on this issue in their respective fields of responsibility.

**The Ministry of Environmental Protection is acting to reduce food loss and waste**.

Major steps taken by the Ministry in the last two years:

* In October 2021, the government approved a 100-Step Climate Action Plan, which includes a chapter dealing with food systems.
* In accordance with this plan, for the last year, the Ministry has led an Inter-Ministerial Committee on Preparing Food Systems for Climate Change. The committee includes representatives from the Ministries of Agriculture and Rural Development, Health, Intelligence, and Education, as well as, the Institute for National Security Studies (INSS). The committee’s objective is to develop targets and a medium-range action plan (through to 2030) to prepare food systems in the State of Israel for climate change, incorporating measures for both adaptation and mitigation, i.e., reducing GHG emissions. The committee’s work is being done by subject-oriented working groups, including one focused on reducing food waste.
* The Ministry led the State of Israel’s preparations for the UN Food Systems Summit in September 2021. The purpose of the summit was to advance sustainable, healthy, egalitarian food systems, in accordance with the UN’s Sustainable Development Goals. In relation to this,the Ministry conducted wide-ranging dialogues with other government ministries, civil society organizations, academia, farmers, key actors in the food industry and others.[[33]](#footnote-42)
* The Waste Management Policy published by the Ministry of Environmental Protection in January 2021 includes sections relating to reducing waste at the source, including food waste.
* In November 2020, the Ministry began publishing, together with Leket Israel, the Food Waste and Rescue in Israel Report, which includes a chapter on environmental impact.

**The Ministry of Labor, Welfare and Social Services launched the National Food Security Initiative in 2017**, in cooperation with Leket Israel and Eshel Jerusalem-Colel Chabad. Under the initiative, benefit cards worth NIS 500 were distributed to approximately 11,000 families suffering from severe food insecurity. The pilot program was launched in February 2017 in 36 municipalities around the country, at a total cost of approximately NIS 65 million annually. Families accepted into the program, were issued a monthly card loaded with NIS 500, by the Ministry of Welfare and Social Affairs via Eshel Jerusalem-Colel Chabad. The card could be used for purchasing food products worth NIS 250 (not including tobacco and alcohol) in select supermarkets and local stores. The remaining NIS 250 was for buying rescued vegetables, fruit, and dry foods, which were delivered to the families’ homes (NIS 180 for fruit and vegetables and NIS 70 for dry foods).

**In May 2021**, a new tender for operating the National Food Security Initiative was issued, after several changes were introduced. The number of people participating in the initiative increased to approximately 26,000 families, who now receive a benefit card worth NIS 350, and a home delivery of fruits and vegetables worth NIS 150.

# Policy Recommendations for Reducing Food Loss and Encouraging Food Rescue

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

The 2021 National Food Loss 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 loss 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 of food 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 energy, water, land, and chemical resources, and would reduce greenhouse gas and air pollutant emissions, such as methane from landfill, as well as the amount of mass sent to landfills.

1. **Set a National Food Rescue Goal** – The goal should be to reduce food loss 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 a government commitment to act towards 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 loss 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 loss reduction and rescue goal. Implementing the plan would require 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 loss and promoting food rescue as a means for meeting emission targets in the fields of loss, industry, and agriculture. Tools could include paying for the commercial loss, a mechanism for pricing the carbon created by landfillingetc., in accordance with the Ministry’s loss 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 loss 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 in supporting food rescue, preventing food from being destroyed and reducing food loss and waste 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 encourages healthy, sustainable nutrition, the prevention of food loss and the encouragement of food rescue, whilst teaching students about the environment and sustainable practices, emphasizing the importance of correct nutrition 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 the 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 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 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, and 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 a related industry to reduce food loss.
* The legislation will regulate the transfer of surplus food to its destination.
1. **Examine** **a Ban on Transferring Organic Loss to Landfills** – Similar to the practice in some US states, we recommend forbidding manufacturers from sending more than a certain amount of organic loss to landfill each month, and when this limit is reached, they are required to find another solution – that could be composting, anaerobic digestion, or donation, for the remainder. This would require establishing criteria to determine which businesses and organizations are covered by this prohibition and the threshold above which the prohibition will apply.

Alternately, **examine payment for commercial loss** – A voluntary mechanism currently allows local authorities to charge businesses a special fee for the collection of commercial loss.[[34]](#footnote-43) This mechanism should be made binding on all Israeli municipalities. To this end, criteria must be established for determining the payment charged to all businesses for commercial loss collection. The amount should be set at a level **that creates an economic incentive to reduce disposal in general, and food loss from industry, retailers, restaurants, hotels, banquet halls, etc. in particular**. Any business that is responsible for creating the organic loss 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 discard it.

1. **Multi-year ongoing governmental support for efforts to reduce food loss/ encourage food rescue –**
* Allocate a budget for ongoing efforts and initiatives for reducing food loss/ encouraging rescue.
* Allocate funding for food rescue and food security as part of the economic preparation for emergencies, crises, and pandemics.
1. **Remove obstacles to reducing food loss** – Advance a comprehensive examination of existing Israeli law and amend it so to prevent food loss 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. “Household Food Waste,” Prof. Ofira Ayalon, Prof. Efrat Elimelech, University of Haifa, Dr. Eyal Ert, The Hebrew University, on behalf of the Chief Scientist, Ministry of Agriculture, managed by the Volcani Institute. [↑](#footnote-ref-4)
5. https://atlas.foodbanking.org/atlas.html [↑](#footnote-ref-5)
6. https://hls.harvard.edu/clinics/in-house-clinics/food-law-and-policy-clinic/ [↑](#footnote-ref-6)
7. https://www.foodbanking.org [↑](#footnote-ref-7)
8. https://atlas.foodbanking.org/atlas.html [↑](#footnote-ref-8)
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10. <https://www.nevo.co.il/law_html/law01/049_062.htm#med1> [↑](#footnote-ref-10)
11. https://www.law.cornell.edu/uscode/text/42/1791 [↑](#footnote-ref-11)
12. https://wrap.org.uk/sites/default/files/2020-07/WRAP-Food-labelling-guidance.pdf [↑](#footnote-ref-12)
13. From product design and development through sale/distribution. [↑](#footnote-ref-13)
14. Water and Resources Action Programme [↑](#footnote-ref-14)
15. <https://www.law.cornell.edu/uscode/text/26/170> [↑](#footnote-ref-15)
16. I.R.C. § 170(e)(1); 26 C.F.R. § 1.170A–4(a)(1) (2018) [↑](#footnote-ref-16)
17. 26 C.F.R. 1.170A-4A(b)(2)(ii)(A) (2019) [↑](#footnote-ref-17)
18. https://www.legifrance.gouv.fr/loda/id/JORFTEXT000032036289/ [↑](#footnote-ref-18)
19. https://chlpi.org/news-and-events/news-and-commentary/food-law-and-policy/webinar-review-waste-bans-penalties [↑](#footnote-ref-19)
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22. https://www.mass.gov/guides/commercial-food-material-disposal-ban [↑](#footnote-ref-22)
23. http://www.mass.gov/eea/docs/dep/recycle/priorities/orgecon-study.pdf [↑](#footnote-ref-23)
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25. According to the Maintenance of Cleanliness Law, amendment 9. [↑](#footnote-ref-34)
26. NIS 111.34/ton as of January 2022 [↑](#footnote-ref-35)
27. 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-36)
28. 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-37)
29. https://atlas.foodbanking.org/country-research.html [↑](#footnote-ref-38)
30. https://ec.europa.eu/food/safety/food\_waste/eu-food-loss-waste-prevention-hub/ [↑](#footnote-ref-39)
31. 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-40)
32. https://edepot.wur.nl/529888 [↑](#footnote-ref-41)
33. The products of these dialogues, pathways for actions and statements of the relevant government ministers may be found here: <https://summitdialogues.org/country/israel/> [↑](#footnote-ref-42)
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-43)