

# FOOD WASTE AND RESCUE IN ISRAEL

REPORT 2024

10th  
Annual  
Report

Economic, Social and Environmental Impact



# INTRODUCTION

This year marks the tenth anniversary of the National Food Waste and Rescue Report. First published in 2015 by Leket Israel and BDO, the Report is now in its third edition in collaboration with the Ministry of Health, and its sixth in partnership with the Ministry of Environmental Protection.

The current edition includes a special, in-depth chapter exploring the implications of food waste and rescue over the past decade. In that time, the Israeli economy has sustained food losses valued at a cumulative NIS 211b (USD \$57B) - excluding the additional environmental and health-related costs, which have also grown significantly. Although Israeli consumers are wasting less food - reflected in a 13.3% decrease in per capita food loss, from 300 to 260 kg annually - the combined impact of rising living costs and population growth has kept the overall volume and value of food loss alarmingly high. The total cost of food loss and waste, including its environmental and health repercussions, continues to climb, further deepening the economic toll on the national economy.

The past decade has been marked by significant events that have underscored the many benefits of food rescue, particularly its contribution to strengthening food security as a core component of national resilience. The Swords of Iron war disrupted agriculture in both the north and south of the country, increasing national food loss and undermining food security. However, thanks to the swift mobilization of volunteers involved in food rescue efforts, some of the damage was effectively mitigated. The COVID-19 pandemic also had a lasting impact on food purchasing, consumption, and waste patterns, accelerating the shift to online shopping and remote work - trends that continue to influence behavior today. Taken together, these events highlight the vital role of reducing food loss and expanding food rescue in bolstering social and national resilience, both in times of stability and in emergencies.

According to estimates presented in the Report, in 2024 alone, the total volume of food loss in Israel reached 2.6m tons, with an economic value of approximately NIS 26.2b (USD \$7B). This loss represents about 39% of the country's total

food production. Of this amount, over 1.2m tons, worth an estimated NIS 9.9b (USD \$2.7b), were edible and potentially rescuable food.

In Israel, where food prices are relatively high by international standards, food loss is a major factor contributing to the cost of living. It affects household expenses directly, through excessive spending on food, and indirectly, by driving up food prices. The Report estimates that in 2024, the impact of food loss on household food consumption added an average cost of NIS 10,785 (USD \$2,900), per household.

In addition, the climate crisis and the Israeli government's commitment to reducing greenhouse gas emissions highlight the need to reduce food loss and waste and expand food rescue as strategic policy tools. Preventing food waste and rescuing surplus food are essential economic and environmental measures in support of Government Resolution 171, issued July 2021, which aims to reduce landfilled waste by 71% by 2030. According to the Report, in 2024, an estimated 2m tons of food and packaging waste were discarded, a volume that contributed to significant environmental harm, with the associated damage valued at around NIS 4.2b (USD \$1.1b).

The Report's findings underscore the strong economic, social, and environmental case for investing in food rescue. For every shekel invested, food valued at NIS 3.6 is directly recovered. When the environmental benefits of avoiding the production, transportation, and distribution of wasted food are taken into account, the return increases to NIS 4.2 per shekel at the national level. Including the health benefits of providing nutritious food to underserved populations, the total economic value to the national economy rises to NIS 10.7 for every shekel invested in food rescue.

Since this Report was first published, we have consistently presented recommendations addressing the regulatory, economic, and policy dimensions of food rescue in Israel. Looking back, we are pleased to see that many of these recommendations have been implemented over the years.

A major milestone came in September 2025, with the launch

of a national plan to reduce food loss and waste, led by the Ministry of Environmental Protection in partnership with the Ministry of Agriculture. A dedicated chapter on this topic was also included in the National Food Security Program. For the first time, Israel has a comprehensive government-backed strategy, complete with clear targets and recommended policy tools to address the issue at a national level. The task now is for the government to ensure the plan is funded and effectively implemented, so that these important recommendations can be translated into meaningful action.

We hope this Report will continue to inform public dialogue on food loss and waste and serve as a practical resource for driving national policy forward, ultimately helping to bring about real change in food loss and rescue patterns across Israel.



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Foreword - Gidi Kroch, CEO of Leket Israel

A decade ago, the State Control Committee of the Knesset, chaired by MK Karine Elharrar, convened to address the issue of food loss and rescue in Israel. Its conclusion revealed a critical gap: there was no data on how much food was being lost, how much could be rescued, or the economic, health, social, and environmental implications of the issue.

It became clear that without data, there could be no informed policy, no strategic planning, and no meaningful change. That’s why we at Leket Israel decided to step in and fill the gap.

This is how the National Food Waste and Rescue Report was born, the first report in Israel to provide a comprehensive, data-driven, and methodologically sound overview of food waste, rescue potential, and the significant cost to the state.

Since then, we have published the report annually for ten consecutive years, and it has become a central tool in shaping food rescue policy in Israel. The data and models developed in collaboration with BDO now serve as a foundation for the work of government agencies, academia, the business sector, and civil society. Over time, these tools have helped shape the national conversation, positioning food loss reduction as a key element of sustainability policy, corporate responsibility, and food security.

The ten-year anniversary of the National Food Waste and Rescue Report marks a significant milestone in a journey that began with isolated food rescue efforts and led to national leadership in the field.

Leket Israel is not only the national food rescue organization; it is a driving force for systemic change. We lead the conversation, research, and policymaking, working in close partnership with government ministries, the Knesset, and the business sector to advance legislation, regulations, and long-

term solutions. The recommendations we have published over the years have led to meaningful change, improving the lives of hundreds of thousands across the country.

Our long-standing partnership with the Ministry of Environmental Protection laid the groundwork for a national food loss reduction policy and key legislative progress. At the same time, collaboration with the Ministry of Health is driving strategic programs to improve nutrition and health among vulnerable populations, including schoolchildren.

Yet the road ahead is still long. The challenges we face – economic, health-related, environmental, and social – demand stronger action, dedicated funding, and deeper, broader collaboration.

Data alone is not enough – what’s needed is bold policy and swift action. Every day of delay means good food goes to waste and families go hungry.

This Report marks ten years of knowledge, action, and impact, and serves as a clear call to continue the journey:

To make food rescue a national norm and a shared goal, until we achieve our ultimate vision:  
An Israel without food waste.

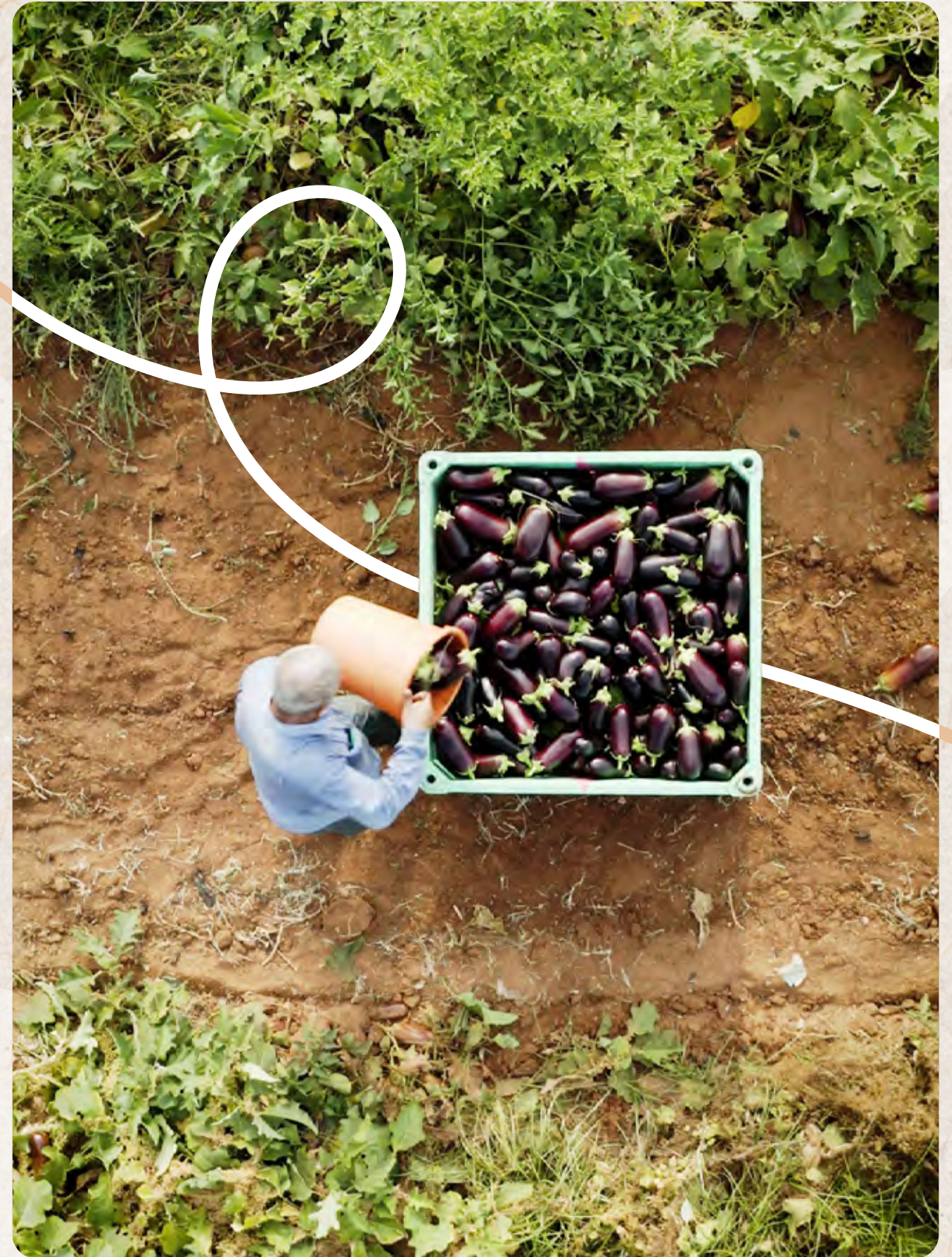
On behalf of Leket Israel, I extend my heartfelt thanks to our many partners in government, academia, the business sector, and civil society for their support, trust, and commitment. Most of all, I wish to thank the dedicated staff of Leket Israel and the hundreds of thousands of volunteers, without whom none of this would have been possible. Together, we will continue driving meaningful change toward a more just, healthy, and resilient society.

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# (1) FOOD SECURITY IN ISRAEL: CHALLENGES AND UNIQUE CHARACTERISTICS







This year's publication includes a special section to mark the Report's tenth anniversary, highlighting the progress made in addressing food loss and waste while also outlining the challenges that lie ahead and the steps required to meet them.

In Israel, food expenditure represents approximately 19% of the average household consumption basket, and rises to 22% among households in the lowest two income deciles. Yet food is not merely a major household expense – it is a basic human necessity. Access to a nutritionally balanced diet is critical to public health and is especially vital for the healthy development of infants and children. Consequently, food shortages or inadequate intake of essential nutrients can lead to harm that goes well beyond the market value of food, which only reflects production costs across the value chain.

Israel stands out among developed countries with one of the highest food expenditure rates, coupled with one of the highest poverty rates among OECD member states<sup>1</sup>. This combination makes food insecurity in Israel a particularly acute challenge. Based on estimates from the National Insurance Institute's December 2021 report<sup>2</sup>, 16.2% of households in Israel experience food insecurity, amounting to approximately 485,000 households nationwide. Food spending among food-insecure households is approximately 25% below the normative level.



1. OECD, Poverty rate, 2021

2. "Poverty and Income Inequality Indicators – 2020 Based on Administrative Data, with Estimates for 2021," National Insurance Institute.

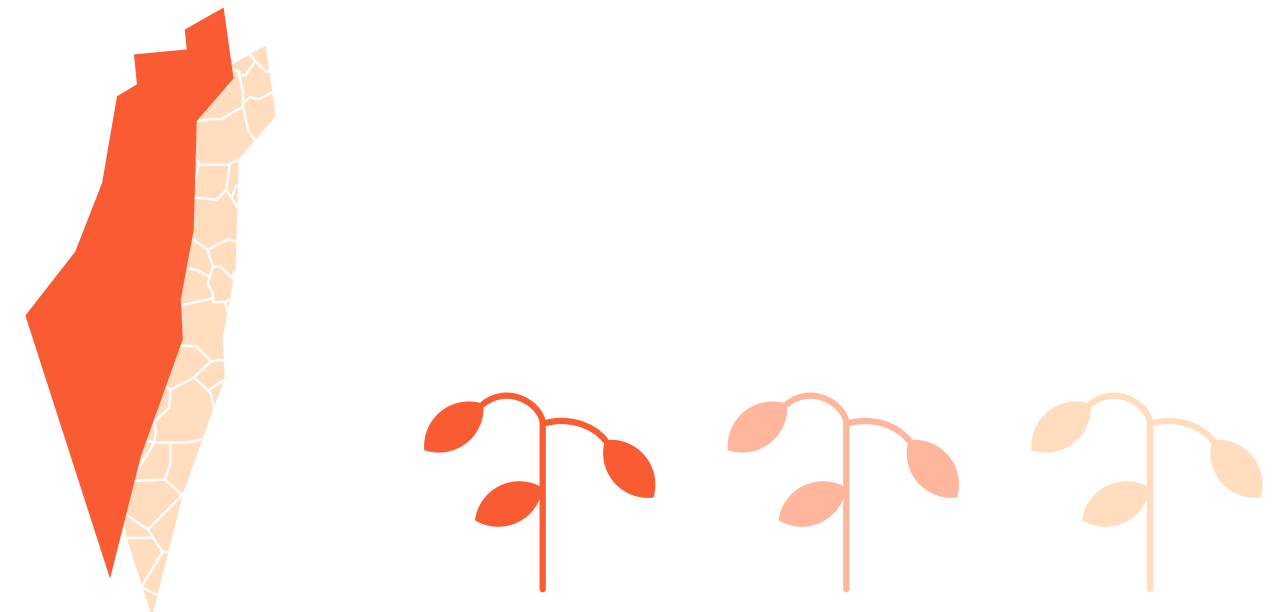
# FOOD PRODUCTION AS AN ENVIRONMENTAL AND STRATEGIC CHALLENGE TO NATIONAL RESILIENCE

Industrial food production carries significant environmental costs<sup>3</sup>, including degradation of water, soil, and air quality, loss of biodiversity, and the emission of greenhouse gases that contribute to climate change. In a small and arid country like Israel, water and land are particularly scarce and valuable resources. Agricultural production is itself inherently uncertain, being heavily influenced by external factors such as pests and increasingly volatile climate conditions.

Climate change has become a tangible and growing threat to the stability of global food systems. In Israel, where geographic and climatic conditions heighten this vulnerability, the effects are likely to be particularly severe. Rising temperatures, declining rainfall, and increasingly frequent extreme weather events, such as droughts, floods, and wildfires, are already disrupting growing seasons, reducing agricultural productivity, straining water resources, and deepening inequalities in access to food.

The 2023 synthesis report<sup>4</sup> of the Intergovernmental Panel on Climate Change (IPCC) underscores climate change as a multidimensional threat to food security, especially in arid and semi-arid regions like Israel, where production systems depend on scarce freshwater resources and a stable climate. According to a risk assessment by Israel's Ministry of Agriculture, unless adaptive agricultural technologies are adopted, climate change could reduce yields of sensitive crops such as tomatoes, potatoes, and wheat by up to 20% by 2040<sup>5</sup>.

Using these limited assets to grow surplus agricultural products that ultimately go to waste results not only in direct economic costs, but also in considerable environmental and social impacts. Moreover, surplus food requires collection, removal, and disposal, most often through landfilling, which consumes additional resources and results in further environmental costs.



3. Cut Waste, GROW PROFIT. How to reduce and manage food waste, leading to increased profitability and environmental sustainability, background paper 2012

4. Intergovernmental Panel on Climate Change (IPCC). (2023). Climate Change 2023: Synthesis Report. Geneva: IPCC.

5. Ministry of Agriculture and Rural Development (2022). Climate Impacts on Agricultural Productivity in Israel: Assessment Report.



# FOOD SECURITY AS A FUNDAMENTAL COMPONENT OF NATIONAL RESILIENCE

A nation's food security depends not only on its domestic production capacity or economic policy, but also on broader geopolitical factors, such as international relations, regional stability, and access to trade routes. For Israel, these factors are particularly critical, given its geographic location, reliance on imported staple foods, and fragile relationships with neighboring countries.

More specifically, Israel relies heavily on imported grains, legumes, oils, and other basic food products from countries such as Russia, Ukraine, Turkey, India, and Romania. Political conflicts, security tensions with any of these countries, or broader instability in the global arena significantly disrupt Israel's food supply, driving up prices and increasing living costs.

The Swords of Iron war demonstrated the vulnerability of Israel's food system. During the conflict, in order to address emerging shortages, the volume of agricultural imports increased significantly. For example, in the first nine months of the war, Israel imported over 190,000 tons of fresh produce – a rise of approximately 40% compared to the same period in previous years.

The cessation of trade with Turkey in May 2024 further exacerbated the situation, leading to an additional rise in the prices of imported vegetables previously sourced from there. As a result, the fruit and vegetable price index rose by about 10% during the first nine months of 2024 compared to the same period the previous year – clearly illustrating the rapid impact of disrupted trade and domestic supply shortages.

In 2024, Israel imported approximately 227,000 tons of fresh plant-based produce – an increase of about 13% compared to 2023. The leading imported items – apples, onions, pineapples,

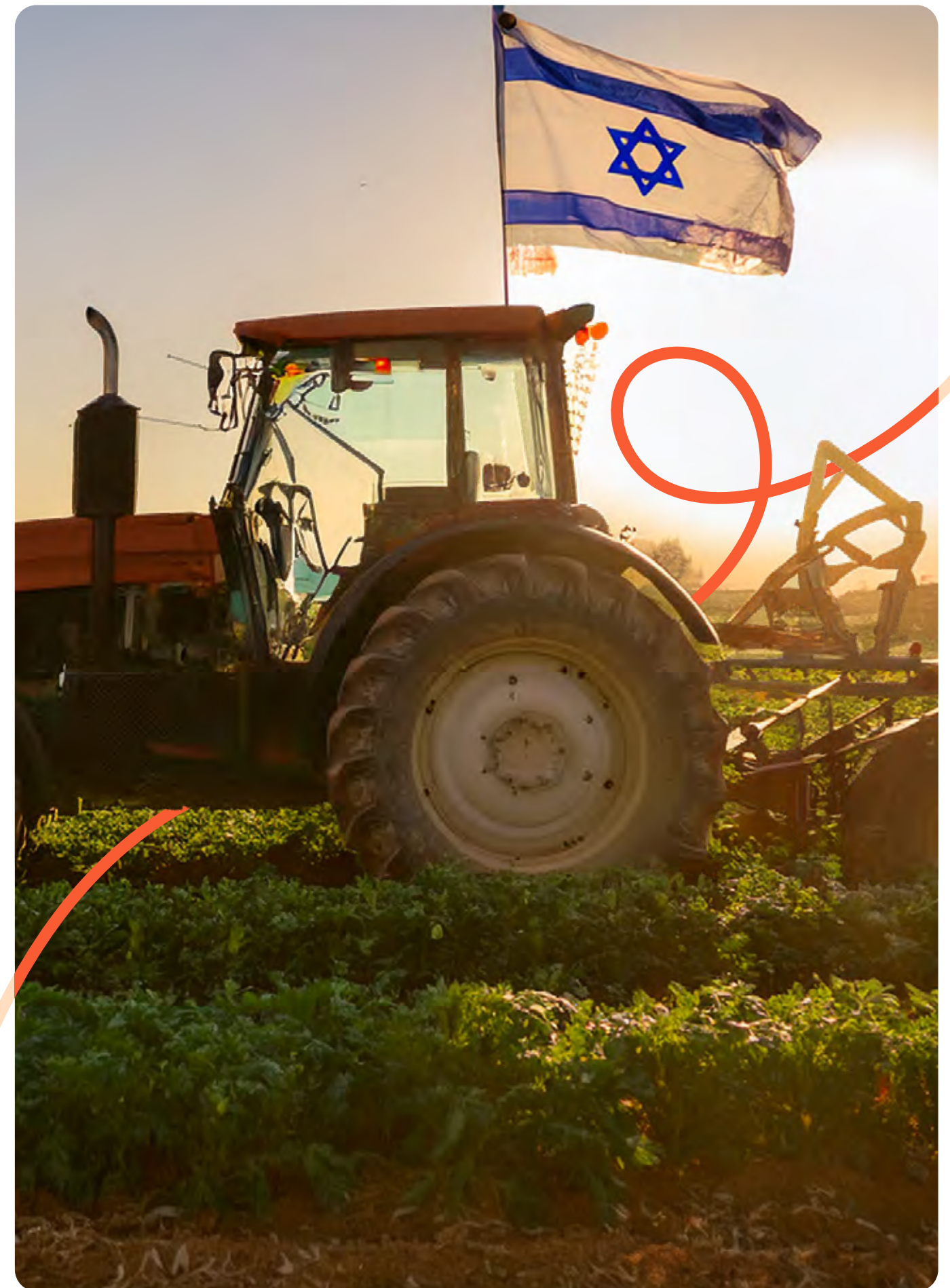
tomatoes, and garlic – accounted for roughly 75% of total fresh produce imports and originated from 30 different countries<sup>6</sup>. While this geographic diversification reduces the risk of dependence on a single exporter or country of origin, it also highlights Israel's growing reliance on non-local agricultural products. This dependency exposes the Israeli market to significant economic and logistical risks, such as supply chain disruptions, global price volatility, or export restrictions imposed by source countries during emergencies, even when import sources appear to be diverse.

The Swords of Iron war, which destabilized the local supply of agricultural food, underscored the critical role of domestic agriculture in Israel's resilience and national continuity. In practice, government import policies failed to resolve the shortages or curb rising prices during the crisis. This suggests that relying on agricultural imports, even in times of relative stability, is insufficient to ensure food security and may, in fact, pose a risk. Periods of instability in the local food supply, especially during times of war, demonstrate the strategic importance of a robust and self-sufficient Israeli agricultural sector for the country's resilience and long-term sustainability.

This Report examines the issue of food loss and waste and the potential of food rescue through economic, social, environmental, and public health lenses, based on data-driven estimates and analysis. It incorporates updated data and methodological refinements, reflecting insights gained from the preparation and publication of previous editions.

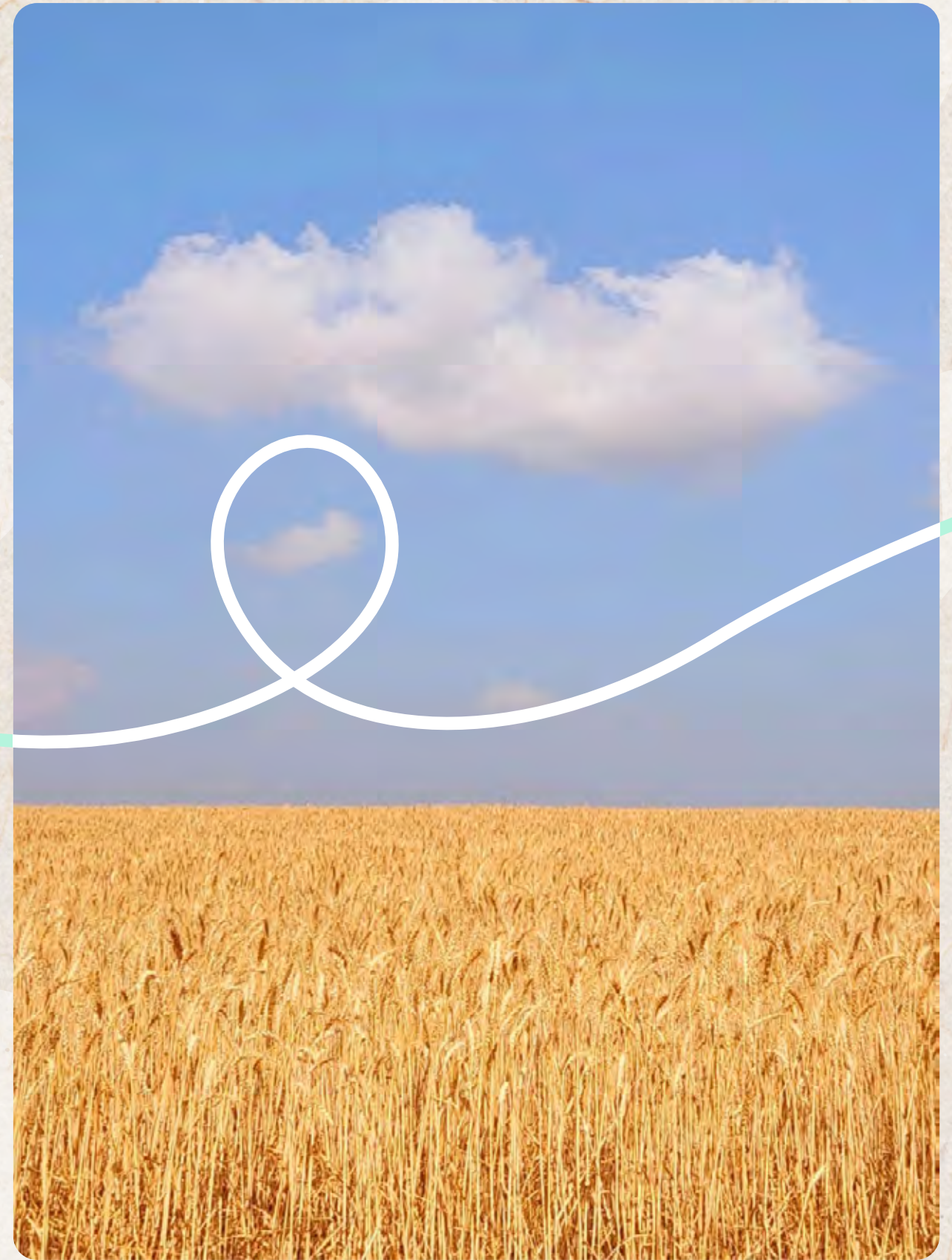
Prepared in collaboration with the Ministry of Health and the Ministry of Environmental Protection, this year's edition also includes a special expanded chapter to mark the tenth anniversary of the Report's publication.

<sup>6</sup> Ministry of Agriculture and Food Security. (February 9, 2025). [https://www.gov.il/he/pages/increase\\_imports\\_of\\_fresh\\_vegetable\\_produce](https://www.gov.il/he/pages/increase_imports_of_fresh_vegetable_produce)





## (2) A DECADE OF MEASURING FOOD WASTE AND RESCUE IN ISRAEL





The initiative to publish an annual Food Waste and Rescue Report was born a decade ago, following the release of the 2015 State Comptroller’s report titled Food Loss and Waste: Social, Environmental, and Economic Implications. That report concluded that Israel lacked a central body responsible for collecting data on food waste and rescue, and had no comprehensive policy on the issue. In response, Leket Israel decided to step in and fill this gap, publishing, together with BDO, the first comprehensive report measuring the scale of food loss and waste, the associated costs, and the potential for rescue. Since then, the Report has become an annual publication, and its findings have helped shape both policy and legislation.

Over the past decade, the cost of food loss and waste has increased by 45%, reaching a cumulative total of NIS 211b (USD \$57b), in addition to substantial environmental and health-related costs.

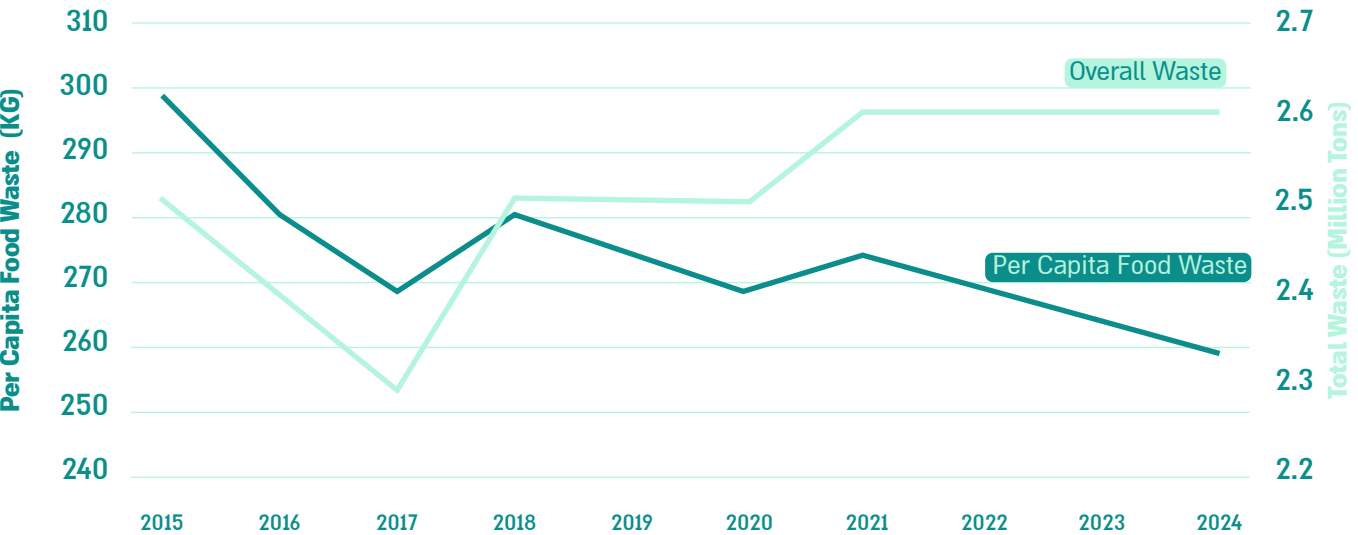


A decade later, in October 2025, the State Comptroller published a new report, titled Ensuring Israel’s Food Needs in Emergencies. This report, issued in the wake of the Swords of Iron War, highlights the importance of national food security as a foundation for civilian resilience and economic stability. It also cites the most recent Leket Israel Report, which analyzed agricultural losses during the war.



# DECADE-LONG TRENDS AND INDICATORS

Scope of Food Waste Over the Decade



Per capita food waste declined by 13% over the decade. This decline is particularly notable given that Israel’s population grew by 19% during the same period. However, despite the 13% drop in per capita food waste, the total volume of food waste (in tons) increased by 4% over the decade, due to demographic growth. In net terms, this reflects a 6% increase in total food waste. Population growth means more waste generation and more food being lost, which in turn makes the challenge of food rescue even greater.

The reduction in per capita food waste can be attributed to a number of factors, including improved technologies for food preparation and storage, shifts in consumption habits, such as increased online grocery shopping and personal food delivery orders, and growing consumer awareness of the consequences of food waste.

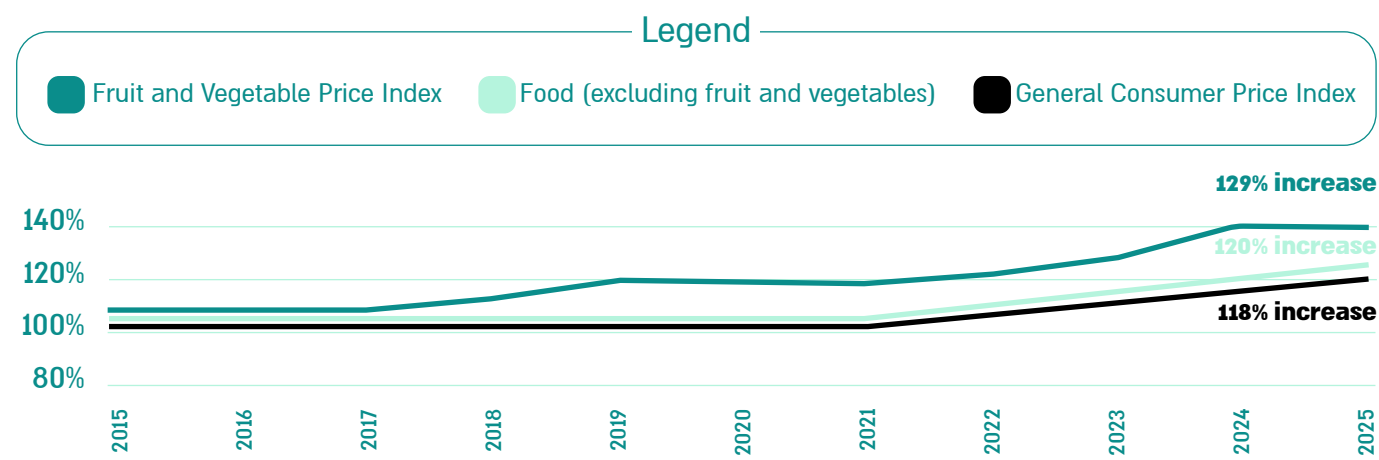
Value of Food Waste (NIS, Billions)



The cost of food waste increased by 45% over the decade, reaching NIS 211b (USD \$57b).







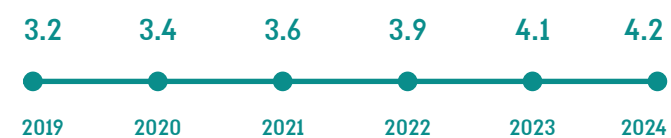
Because the food being discarded today is more expensive, the value of food waste has risen significantly, even though the quantity of wasted food has declined.

A significant portion of this increase is due to a sharp rise in food prices, particularly for fruit and vegetables, which outpaced general inflation. Between 2015 and 2025, fruit and vegetable prices rose by 29%, compared to an 18% increase in the Consumer Price Index. Other food prices (excluding fruit and vegetables) also increased at a faster rate than the national average, rising by approximately 20% over the same period.

Environmental and health-related costs have also increased over the years:

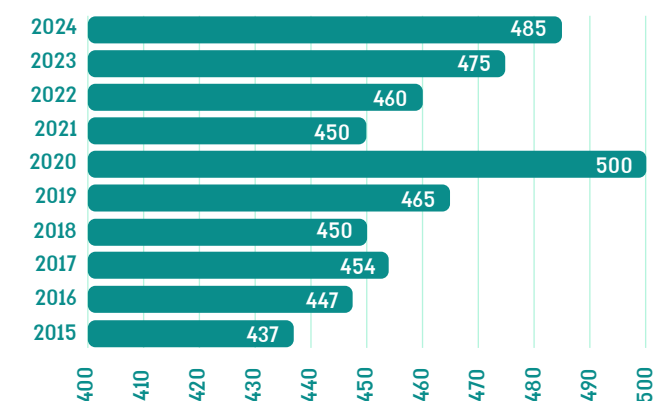
**Environmental and health** - related costs have also increased over the years: Environmental costs, which have been measured in this Report since 2019, have risen by 30% during that period. This increase is due to the overall growth in food loss and waste and the fact that a large share of the waste now occurs in the later stages of the value chain - distribution and consumption - where each unit of food already embodies the full environmental footprint accumulated during cultivation, production, packaging, and transportation. Additionally, food waste leads to a greater waste of resources, including water, land, and energy, and increases the volume of waste that requires disposal. Further impacts include rising greenhouse gas emissions and air pollution.

### Environmental Costs (NIS, Billions)



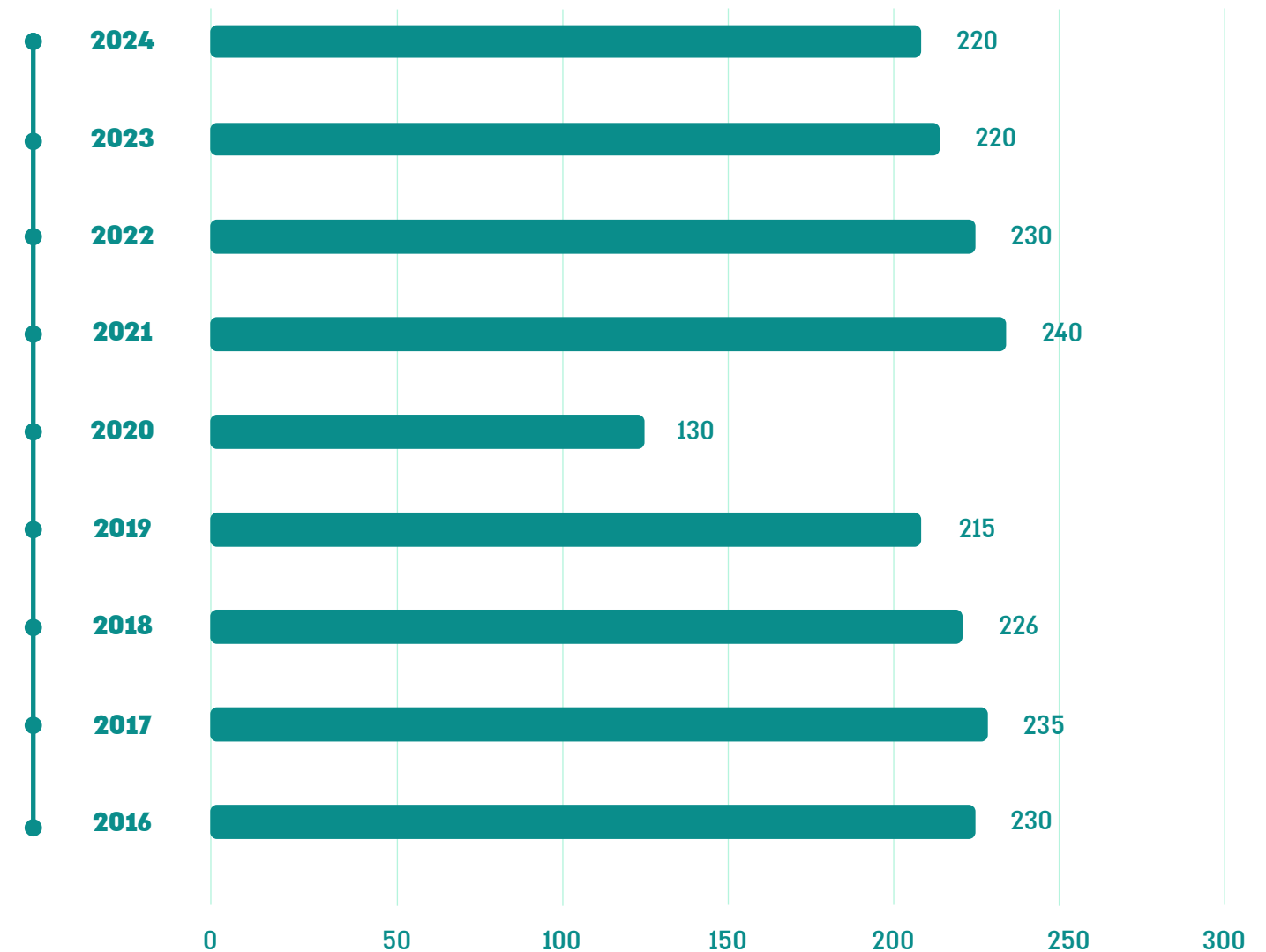
**Health costs** - The health-related costs of food waste in Israel continue to rise each year, driven by the growing number of households experiencing food insecurity, the deepening severity of that insecurity, and its cumulative impact on public health. Rising prices of healthy foods, combined with widening economic disparities, are leading more households to forgo fruit, vegetables, and other nutritious foods in favor of cheaper, highly processed alternatives that harm health. This poor diet contributes to a steady increase in chronic conditions such as diabetes, obesity, hypertension, and depression, which in turn drive up national expenditures on medical services, medications, and hospitalizations. Because these conditions are long-term and tend to worsen over time, the health consequences and economic costs to the national healthcare system continue to accumulate year after year, becoming more severe as food insecurity expands.

### Households Suffering from Food Insecurity (Thousands)



The total costs of wasted food continue to grow, deepening the economic, environmental, and health-related impacts.

### Food Waste in Institutional Consumption (Kilotons)



**Food waste in institutional consumption was the most volatile among all sectors.** The most significant drop occurred during the COVID-19 pandemic, with a 46% decrease in institutional food waste between 2019 and 2020. This reduction was primarily due to a sharp decline in consumption across restaurants, hotels, event venues, workplace catering, and educational institutions as a result of lockdowns and restrictions.

During the Swords of Iron War, there was no overall decrease in institutional food consumption, however the distribution of food consumption shifted among institutional sectors. This was due to a rise in the number of active reservists, reduced physical attendance at workplaces, and the continued impact of COVID-era changes in workplace food consumption patterns, such as remote work and the replacement of dining halls with individually ordered meals.

**Agriculture** - During the COVID-19 pandemic, agricultural food loss increased by 3%, mainly due to labor shortages during lockdowns, export restrictions, and the closure of the institutional sector.

In the Swords of Iron War, agricultural production declined by 7% in 2023 and by a further 6.7% in 2024. Over 30% of Israel's agricultural land lies in front-line areas affected by the conflict: approximately 22% in the Tekuma region (Gaza envelope) and another 10% along the northern border. A portion of the decline in agricultural output can be attributed to the increase in crops left unharvested in the field. These crops could not be collected due to either their location in conflict zones or a lack of available labor. However, this production loss is not fully reflected in food loss data, as unplanted crops - while representing a reduction in domestic output - are not classified as food loss under widely accepted



international methodologies. Importantly, thanks to extensive volunteer efforts during the war, which helped harvest crops and prevent their loss, the overall damage in the agricultural sector was mitigated.

**Household Consumption** - During the COVID-19 pandemic, lockdowns and restrictions led to a shift in consumption toward the household sector, resulting in an 8% increase in household food consumption.

**Retail and Distribution** - During the pandemic food waste declined by 4.5%, due to the closure of open-air markets and a shift toward purchasing from supermarket chains and through online platforms.

**Post-Pandemic Impacts** - The pandemic brought about structural changes whose effects are still felt today:

- Changes in consumption patterns - including increased online grocery shopping (via both major retailers and private platforms), and the rise of delivery apps (such as Wolt and 10bis).
- Shifts in employment patterns - particularly the transition to remote work, which remains partially in place.

**Impact during the Swords of Iron War** - Agricultural production was disrupted and reduced due to:

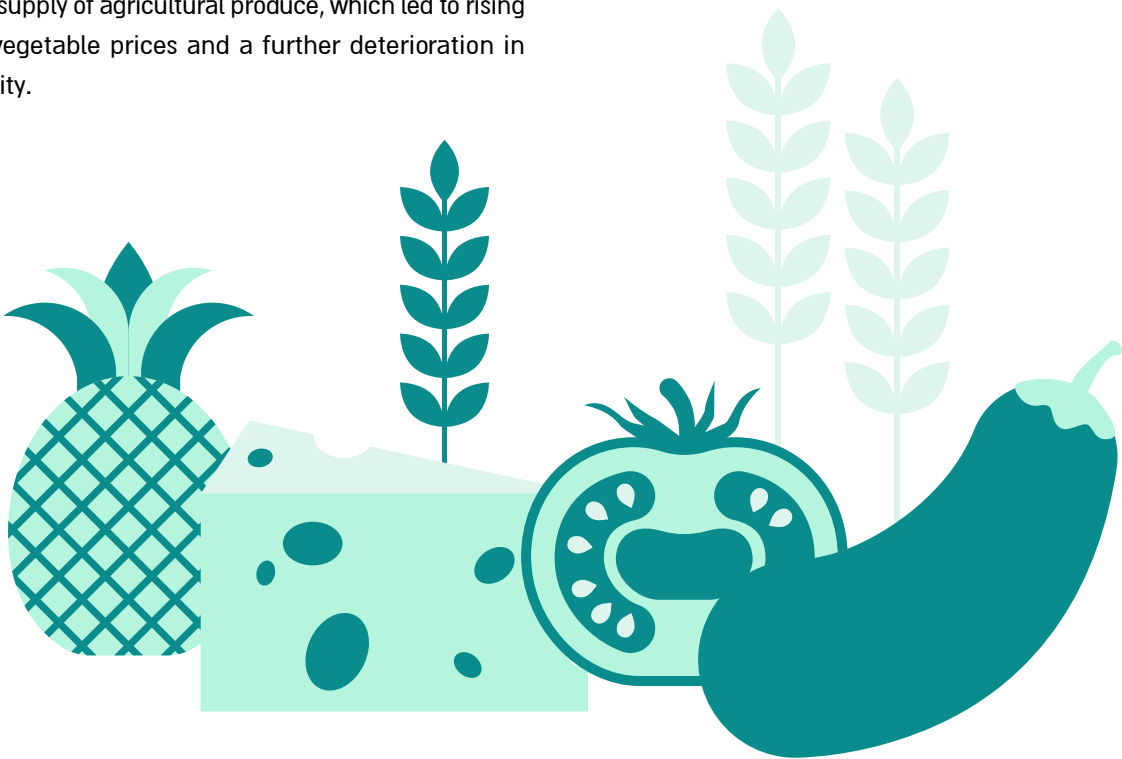
- Limited access to agricultural land.
- Labor shortages affecting harvesting and production.
- Reduced supply of agricultural produce, which led to rising fruit and vegetable prices and a further deterioration in food security.

This raises the question of whether, as with the COVID-19 pandemic, the war will lead to future structural changes. For example:

Will the agricultural labor shortage create an incentive to develop automation and innovation processes that help reduce food loss? And now that the war has underscored the importance of food security as a pillar of national security, will this awareness translate into concrete government policy, both in times of routine and in times of crisis?

These and other questions will be put to the test in the years to come.

The volume of food actually rescued has grown significantly - increasing 2.25 times over the past decade - and is estimated at approximately 45,000 tons per year as of 2024. This increase can be attributed to growing professionalization and improvement in food rescue operations, including stronger partnerships with farmers and food donors, enhanced logistics systems, and rising public awareness. Despite this progress, only 5% of the rescue potential is currently being realized, highlighting the urgent need to scale up food rescue efforts on a national level.



# POLICY AND LEGISLATION IN ISRAEL ON FOOD LOSS AND WASTE (2015-2025)

Over the past decade, Israel has taken initial steps to regulate the field of food loss and waste. Foremost among these are the Food Donation Encouragement Law (2018) and its amendment (2024), which established legal protections for food donors and imposed obligations on large public institutions to cooperate in food donation efforts. In parallel, policy frameworks have been developed, including regulatory recommendations on food labeling, donation safety, and mandatory reporting. However, many of these commitments remain at the recommendation stage. While the legislative progress to date is important and reflects a shift in mindset, additional legislation and full implementation of the new National Plan<sup>1</sup> are still required to translate these recommendations into binding measures and close the gap between policy and practice.

### Legislation:

2015	<b>Public Health Law - Section 160</b> Requires the Ministry of Health to publish official guidelines on food donation safety	Not implemented
2018	<b>Food Donation Encouragement Law</b> Provides legal protection for food donors and distributing nonprofits from criminal and civil liability	Implemented
2022	<b>Bill - Prohibition on Landfilling Untreated Organic Waste</b> Requires treatment of organic waste before landfilling; promotes composting and grants for municipalities	Proposal only
2024	<b>Amendment to the Food Donation Law</b> Requires public institutions serving over 500 meals a day to cooperate with a food distribution organization.	Implemented

### Policy Tools:

2017 - 2025	<b>Inter-ministerial collaboration on the Food Waste Report</b> Involvement of the Ministry of Environmental Protection, Ministry of Agriculture, and Ministry of Health - key stakeholders in food rescue	Implemented
2022	<b>Inter-ministerial Food System Resilience Plan</b> Served as the foundation for the National Food Security Plan launched in 2025	Implemented
2022	<b>Leket Israel representation in the Presidential Climate Forum</b> The forum was established to signal Israel's commitment to addressing the climate crisis, recognizing food rescue as an integral part of the solution.	Implemented
2022	<b>Inclusion of food rescue in Ministry of Welfare funding criteria</b> Food rescue officially recognized as an activity eligible for government funding	Implemented
2025	<b>Launch of the National Plan to Reduce Food Loss and Waste (and a Food Security chapter included in the National Food Security Plan)</b> Led by the Ministry of Environmental Protection in cooperation with the Ministry of Agriculture	Implemented

1. <https://www.gov.il/he/pages/food-loss-reduction>



# SHIFTS IN PUBLIC ATTITUDES OVER THE PAST DECADE: AWARENESS VS. ACTION



Engaging the younger generation is considered one of the most effective ways to shape long-term consumption habits and reduce food waste over time

Beyond policy change, consumption patterns, food culture, and food management at both the household and institutional levels play a major role in tackling food waste. Daily consumer decisions—from grocery shopping to behavior at home, in restaurants, and in hotels—directly affect the volume of food waste. Over the past decade, there has been a steady global increase in public awareness of the issue. According to a consumer survey conducted across 11 European countries, consumer awareness of the food they waste has doubled in recent years, reaching 72%<sup>2</sup>. Yet even in Europe, as in Israel and many other countries, a gap persists between awareness and actual behavior. A public opinion survey conducted by the Midgam Institute on behalf of Leket Israel in December 2024 found that while awareness is high, food waste remains widespread: 78% of respondents said they buy fruit and vegetables based on what they expect to consume, however 77% admitted to discarding uneaten food. Among those who claimed to shop carefully, 76% still reported throwing away food to some extent, and among those who said they buy more than they need, 91% reported wasting food. In addition, 39% of Israelis admit that the external appearance of fruit and vegetables influences their purchasing decisions, rising to 54% among young adults aged 18–24.

Engaging the younger generation is considered one of the most effective ways to shape long-term consumption habits and reduce food waste over time. In the European Union, the School Fruit and Vegetable Scheme distributes fresh produce in schools alongside nutrition education, based on the understanding that eating habits are formed at an early age.

In the United States, the Fresh Fruit and Vegetable Program (FFVP), operated by the U.S. Department of Agriculture, provides children in under-resourced schools with fresh fruit and vegetables in addition to their meals. Evaluations of the program show increased consumption among participating students.

In the United Kingdom, the Jamie’s School Dinners initiative led to a revamping of school menus, incorporating healthier ingredients and raising awareness among students and parents about the importance of proper nutrition. In Hungary, the Project Wasteless program focuses not only on nutrition but also on food waste reduction. Through lessons, games, and school activities, the initiative has succeeded in reducing avoidable food waste by up to 22%. In Israel, Leket Israel’s Leket Bri’ut (“Leket Health”) program aligns with this global trend, by combining the distribution of fruit and vegetables with nutrition education in schools, including education on food waste prevention. Findings from the program’s evaluation show that in 2024, it contributed to increased fruit consumption among parents, particularly in families experiencing a decline in food security, creating a protective effect during a time of crisis. However, the fact that the behavioral change among children themselves was not substantial highlights the challenge of transforming early awareness into lasting habits, and reinforces the importance of consistent, long-term education that begins at an early age.

2. Capgemini Research Institute. (2022). Reflect. Rethink. Reconsider. Why food waste is everybody’s problem. Capgemini.

In the institutional catering sector, new consumer trends are gaining momentum. Across Europe, supermarket chains are offering “imperfect” fruit and vegetables, and hundreds of restaurants have been awarded the Michelin Green Star, which recognizes establishments that meet high sustainability standards. Globally, zero-waste restaurants are becoming a growing trend, including in Israel, where some restaurants have embraced the concept of maximizing the use of each ingredient.

In the hospitality sector, a clear global shift is underway to rethink the traditional buffet format in an effort to reduce food waste. For example, the Scandic hotel chain has reduced pastry sizes, the Ibis hotel chain uses smaller plates to encourage guests to take less food, and hotels such as Novotel Bangkok Sukhumvit display signs with direct messages encouraging guests to avoid waste.

A study conducted in Israel in 2025 examined food waste at hotel breakfast buffets. The findings revealed that guest behavior, according to hotel managers and chefs, is perceived as the primary driver of food waste, followed by overpreparation and excessive serving by the hotels themselves. Behavioral explanations identified in the study include guests’ desire to “get their money’s worth” by overloading plates, and a fear of missing out on tasting opportunities.

In Israel’s major hotel chains (Dan, Fattal, Isrotel), the traditional breakfast buffet has remained largely unchanged and continues to be a defining part of the Israeli hospitality experience. However, among smaller boutique and luxury

hotels, there is a noticeable shift toward more measured approaches, including a move to individual portions, or hybrid models combining smaller buffets with table service.

Over the past decade, there has been a growing global trend of integrating food waste reduction into **corporate responsibility** and ESG (Environmental, Social, and Governance) strategies. According to S&P Global’s 2025 Global Sustainability Report, which reviewed thousands of publicly traded companies, there had been a steady rise in the inclusion of food waste reduction targets in corporate sustainability reports. The percentage of companies addressing this issue increased from 12% in 2022 to approximately 18% in 2024. Furthermore, the data show that around 9% of companies are actively implementing strategies for repurposing surplus food, while roughly 8% are running dedicated programs to reduce food waste. Some have even established measurable goals and timelines to track their progress. In Israel, corporate responsibility in this area is also gaining traction, especially among companies in the food sector. Strauss Group, for instance, has been incorporating food waste reduction targets, surplus donations, and process optimization into its ESG policy for several years now. Sodexo Israel, the institutional catering and services company operating as part of the global Sodexo Group, reported in 2024 a 40% reduction in food waste through the use of the Leanpath Watch-Waste system, preventing the disposal of over 16 tons of food.

In terms of public awareness initiatives, Israel’s Food Waste Awareness Day was launched in 2019 by The Natural Step Israel (TNS) and was expanded two years later into a







full awareness week, engaging hundreds of organizations and municipalities. Community initiatives were launched, including the placement of public fridges in markets, and the development of the Israeli app Spare Eat, which enables businesses to offer discounted surprise baskets of food that would otherwise be discarded at the end of the day.

Alongside positive shifts and rising awareness, the persistence of the “value-action gap” – where consumers hold pro-environmental attitudes but struggle to act on them – has emerged as a significant behavioral barrier. A 2025 study published in Scientific Reports examining Generations X and Y in Hungary found that even when individuals were highly aware and willing to reduce food waste, ingrained consumption patterns and cultural perceptions limited actual behavioral change<sup>3</sup>. Another study, published in 2024 in Humanities and Social Sciences Communications, found that

intentions to reduce food waste often fail to materialize due to obstacles such as lack of time, unsupportive environments, or social norms. The researchers suggested that reinforcing factors such as ability, opportunities, and social incentives can help bridge the gap from intention to action<sup>4</sup>. Similarly, a 2021 study in Sustainability found that even consumers with strong “green” values often face external barriers, such as cost, consumer norms, or lack of infrastructure, which prevent them from consistently adopting environmentally responsible behaviors<sup>5</sup>.

**These findings demonstrate that while the positive trend of growing awareness and isolated changes is important, it is insufficient. Reducing food waste requires a combination of consumer responsibility, effective public policy, economic incentives, and systemic support - without which the gap between values and actions will persist.**

3. Mucha, M., & Oravec, R. (2025). Assumptions and perceptions of food wasting behavior and intention to reduce food waste in the case of Generation Y and Generation X. Scientific Reports, 15, 86252. <https://doi.org/10.1038/s41598-025-86252-z>

4. Shan, Y., Yang, L., Huang, J., & Liu, W. (2024). How to improve the consistency of consumers' food waste reduction intentions and behaviors? Humanities and Social Sciences Communications, 11, 375. <https://doi.org/10.1057/s41599-024-03975-6>

## ACHIEVEMENTS AND CHALLENGES

The achievements of the past decade are the result of consistent, systematic efforts to place food loss and waste on Israel's national agenda. Key milestones include the passage of the Food Donation Act and its 2024 amendment, revisions to government support criteria, the ongoing involvement of relevant ministries in this Report, and ultimately, the development of the National Plan to Reduce Food Loss and Waste, accompanied by a dedicated chapter in the National Food Security Plan<sup>6</sup>. The plan, developed through consultation with dozens of stakeholders and experts, including Leket Israel, represents the first comprehensive governmental framework with defined targets for addressing the issue. The next essential step is to ensure the plan is fully funded and effectively implemented.

In addition to these gains, public awareness has grown, and actions taken over the years have led to a measurable increase in actual food rescue. The estimated volume of rescued food has more than doubled, from 20,000 tons in 2015 to 45,000 tons in 2024 (a 2.25-fold increase). This growth reflects the expanding efforts of organizations engaged in food rescue – foremost among them, Leket Israel.

These and other accomplishments signal a meaningful and positive shift achieved through persistent effort over time, underscoring the importance of continuing to advance this work.



**These and other accomplishments signal a meaningful and positive shift achieved through persistent effort over time, underscoring the importance of continuing to advance this work.**



6. The National Program for Reducing Food Loss and Waste, Ministry of Environmental Protection (2025) <https://www.gov.il/he/pages/food-loss-reduction>



# LOOKING AHEAD: HARNESSING FOODTECH AND AI TO COMBAT FOOD LOSS AND WASTE AND DRIVE FOOD RESCUE

Looking ahead, alongside ongoing policy shifts and the lessons learned from the COVID-19 pandemic and the Swords of Iron War, it is crucial to consider the role of emerging technologies in reducing food loss and waste.

FoodTech is an interdisciplinary field that integrates technology and food science, encompassing the development and application of innovative solutions to optimize food production, extend shelf life, enhance nutritional value, develop alternative proteins, and repurpose organic waste. The sector builds on rapid technological advances in biotechnology, food engineering, smart sensors, and artificial intelligence. The integration of these technologies enables more efficient production processes, enhanced forecasting and supply chain management, and the development of novel packaging and food preservation solutions. As such, the FoodTech industry offers a wide range of tools that can directly contribute to the reduction of food loss and waste. Israel holds significant potential for continued growth in the FoodTech sector over the coming decade, driven by its unique combination of scientific expertise, agricultural experience, and technological entrepreneurship. This momentum is reflected in the 2025 Agrifood Tech map, published by Startup Nation Central and GrowingIL<sup>7</sup>, which outlines a robust ecosystem of over 750 active companies in the FoodTech and AgriTech domains. These include more than 150 dedicated startups, alongside multinational firms, incubators, research centers, and investors. In 2024 alone, 33 investment rounds exceeded \$1m each, with over 30% of the capital directed toward robotics and smart agricultural equipment. Additional high-growth areas included AI-powered solutions and intelligent supply chain management, both closely tied to efforts to minimize food waste.

**In the coming years, the FoodTech sector is expected to expand significantly, offering new tools to address global food challenges, including food loss and waste reduction and food rescue. These include:**

**1. Innovation in Early-Stage Production and Supply -**

Artificial intelligence and smart forecasting systems are increasingly being used to better align supply with demand during the production phase. These systems rely on real-time data analysis algorithms that enable farmers and retail chains to reduce surplus volumes. Examples include:

- Use of drones and sensors for crop monitoring and precision irrigation - Drones provide real-time imagery of crop conditions, allowing farmers, particularly in the United States, Spain, the Netherlands, and France, to detect areas of water shortage or excess. This helps prevent yield loss while conserving resources. In Israel, companies such as Taranis and Prospera are leading examples of the Precision AgTech space, integrating drone technology and computational intelligence to monitor crop health.
- Demand forecasting systems in retail chains (e.g., Walmart and Tesco) that support smart inventory management and help minimize surplus before distribution. By leveraging historical data, weather patterns, and consumer behavior trends, they help balance inventory with actual consumption, thereby reducing unsold food volumes.

Outlook: According to the FAO (2023), the adoption of AI and big data technologies is expected to grow in developing economies as well. This trend will likely position technology-driven food loss reduction at the production stage as a new global standard<sup>8</sup>.

**2. Innovation Across the Supply Chain -** Within the supply chain, Internet of Things (IoT) technologies and smart packaging are gaining increasing prominence. Real-time sensors enable continuous monitoring of temperature and humidity, while smart packaging helps extend the shelf life of perishable products. Examples include:

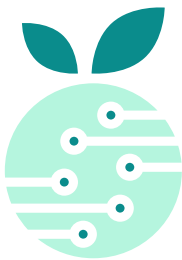
- Smart packaging with oxygen absorbers to delay spoilage. For instance, U.S.-based Multisorb Technologies develops oxygen-absorbing materials embedded in food packaging to extend the shelf life of meat, cheese, and baked goods. In Japan, oxygen-absorbing packaging is widely used for sushi and ready-made baked items.
- IoT sensors in the transportation of agricultural produce, fish, and dairy products. In Israel, the Xsense system offers a smart cold-chain monitoring solution used to track a wide variety of food items from farm to shelf.
- Producing soups from rescued surplus vegetables - In Israel, Leket Israel's frozen soup initiative has extended the shelf life of rescued produce. Launched in response to the challenges of supplying fresh food during the COVID-19 pandemic, the project aimed to preserve rescued produce and provide an additional source of nutrition.

Outlook: According to the 2024 UNEP report, the global market for smart packaging is expected to double by the end of the decade, and IoT sensors are projected to become a standard tool in the food industry<sup>9</sup>.

**3. Innovation in Circularity and Reuse -**

Transforming food waste into new raw materials is a key component of the circular economy. Through advanced technologies, it is now possible to produce fertilizers, biogas, compostable packaging, and even protein derived from the fermentation of organic waste. Current examples include:

- Biogas facilities in Europe (UK, Italy, and Germany) that convert food waste into energy, thereby reducing greenhouse gas emissions and decreasing the need for landfill disposal.
- Innovative companies developing compostable packaging from natural sources. For example, Notpla (UK) produces seaweed-based packaging, Ecovative (US) uses mushrooms to create biodegradable materials, and TIPA (Israel) manufactures compostable wrapping films as an alternative to plastic.



- Urban initiatives for food waste reuse. In Italy and the Netherlands, surplus food from street markets and the food service sector is collected and redirected for use in energy generation or as compost for urban agriculture.

Outlook: According to the Ellen MacArthur Foundation (2022), by 2030, the circular economy is expected to become a central pillar of both corporate and governmental policy. Solutions for the reuse of food waste will increasingly be adopted at both municipal levels and by manufacturers and retailers<sup>10</sup>.

Investment in the FoodTech sector naturally contributes to reducing food loss and waste, as advanced technologies in preservation, demand forecasting, imperfect produce utilization, and production process optimization enable significant reductions in lost and discarded food across the entire value chain - from farm to consumer.

Israel holds substantial potential for further development in FoodTech over the coming decade, due to its unique combination of scientific expertise, agricultural experience, and technological entrepreneurship.

To realize this potential and position Israel as a global FoodTech leader, several complementary steps are required:

- Supportive government policy - Flexible policy tools that can adapt quickly to changes in the field, incentives for innovation, and the establishment of national targets for food waste reduction through FoodTech solutions.
- Public and private investment in pilot projects and large-scale implementation.
- Bridging research and industry - Encouraging partnerships between academia, startups, and food corporations.
- International collaboration - Engaging with global platforms such as UNEP, OECD, and FAO to scale local solutions for international impact.

7. 0e38a4\_dd262bd908d41679e18e1fd88d7a28a.pdf

8. Food and Agriculture Organization of the United Nations. (2023). The State of Food and Agriculture 2023: Revealing true costs for transforming agrifood systems. Rome: FAO. <https://doi.org/10.4060/cc7724en>

9. 2 United Nations Environment Programme. (2024). Food Waste Index Report 2024. Nairobi: UNEP. Retrieved from <https://www.unep.org/resources/food-waste-index-report-2024>

10. 4 Ellen MacArthur Foundation. (2022). The circular economy in detail: Food Retrieved from <https://ellenmacarthurfoundation.org>



# (3) 2024 IN NUMBERS: FOOD WASTE AND RESCUE





# 2024 IN NUMBERS: FOOD WASTE AND RESCUE

2.6  
Million Tons

Food loss and waste in Israel in 2024

Food loss and waste is typically categorized into two principal stages of the value chain:

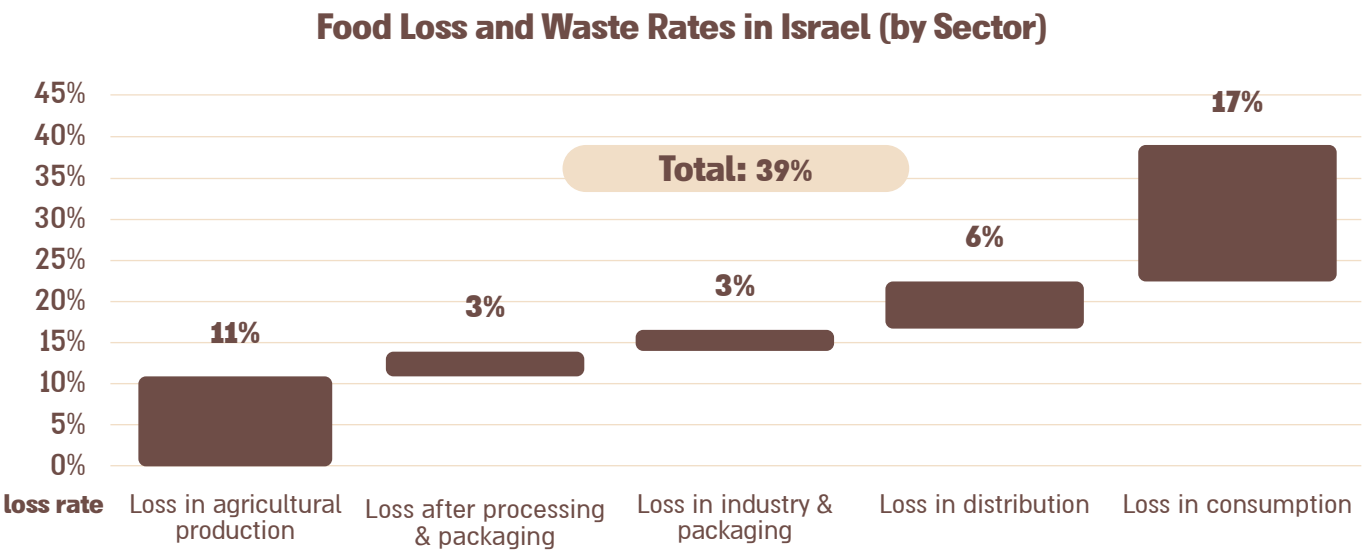
- 1. Production stage loss - encompassing agricultural production up to the retail stage.
- 2. Consumption stage waste - encompassing retail and distribution through to final consumption.

The scale of food loss and waste varies significantly depending on the type of food and the stage at which it is lost along the value chain. At each stage, the loss or waste is measured

as a percentage of total production or consumption at that point in the chain. For example, 10% of the food produced in agriculture is lost during the farming stage. Similarly, 16% of the food consumed in the consumption stage (household and institutional) goes to waste.

For each food category, the estimated volume of inputs and outputs was calculated in terms of raw agricultural produce and loss rates across each stage of the value chain in the production, marketing, and consumption process of food in Israel. The total estimated food loss, both overall and by food category, is based on the cumulative losses from each product and stage.

The loss assessment is based, among other things, on agricultural loss surveys conducted and updated by the Volcani Institute<sup>1</sup>. The data used for estimating losses also incorporates additional assessments that synthesize a wide range of information sources and data available to the Report’s authors. These include collaborations with the CBS, joint work with the Ministry of Agriculture and Food Security, data from the Ministry of Environmental Protection, the Ministry of Welfare and Social Affairs, interviews with field experts, findings from prior research and studies, international comparison data, and more.



Total food loss and waste across all stages of the value chain is equivalent to approximately NIS 740 (USD \$200) per month per household in Israel, with about 50% attributed to fruit and vegetables.

1. Dr. Ron Porat, 2015 & 2016.

## Food Loss Rate at Each Stage of the Value Chain (Kilotons)

		Agriculture	Processing & Packaging	Industry	Net Import (minus other uses)	Retail & Distribution	Consumption
 Fruit & Vegetables	Loss rate	16%	5%	4%	+388	9%	21%
	Loss in kilotons	583	159	21		337	703
	Out of total volume (kt)	3,743	3,160	556		3,692	3,356
 Grains & Legumes	Loss rate	4%	4%	5%	+1,275	3%	21%
	Loss in kilotons	10	10	11		47	320
	Out of total volume (kt)	248	238	226		1,578	1,531
 Meat, Fish & Eggs	Loss rate	5%	1%	5%	+169	5%	12%
	Loss in kilotons	816	5	31		42	103
	Out of total volume (kt)	816	777	614		890	851
 Milk & Dairy Products	Loss rate	4%	1%	1%	+8	2%	6%
	Loss in kilotons	63	8	19		28	99
	Out of total volume (kt)	1,702	1,639	1,602		1,667	1,640
Total	Loss rate	11%	3%	3%	+1,840	6%	17%
	Loss in kilotons	696	182	82		454	1,225
	Out of total volume (kt)	6,510	5,815	2,997		7,828	7,377

21% of total loss = 1.5 b USD

79% of total loss = 5.6b USD

Source: BDO estimates; loss rates have been rounded to the nearest whole number for presentation purposes.



Estimated Food Loss and Waste per Household in Israel in 2024\*

Loss per Household (NIS per Month)	Agriculture	Processing & Packaging	Industry	Retail & Distribution	Institutional Consumption	Household Consumption	Total
 <b>Fruit &amp; Vegetables</b>	88	25	2	101	43	130	389
 <b>Grains &amp; Legumes</b>	2	1	1	26	37	91	157
 <b>Meat, Eggs &amp; Fish</b>	13	2	15	56	28	46	160
 <b>Milk &amp; Dairy Products</b>	4	1	1	5	4	18	33
<b>Total</b>	<b>106</b>	<b>29</b>	<b>20</b>	<b>188</b>	<b>111</b>	<b>285</b>	<b>739</b>

\*A loss of NIS 740 (USD \$200), per household per month reflects the loss throughout the entire value chain, including direct household expenditure.

In monetary terms, approximately 20% of total loss value, valued at around NIS 5.5b (USD \$1.5b), occurs at the production stages. This accounts for about 16% of the total value of agricultural output in Israel. The remaining 80% of the food loss value, NIS 20.7b (USD \$5.6b) occurs during the retail, distribution, and consumption stages.

The value per ton increases as we move along the production chain, as additional costs are invested in sorting, processing, transportation, distribution, and retail. In this Report, the value of loss in the production stages—agricultural cultivation, packaging, and industry—is estimated based on the wholesale price to the farmer. Losses at later stages of the value chain are assessed based on the retail price of food.

To assess food loss and waste estimates and the potential for food rescue, a comprehensive value chain model for food production and consumption in Israel was developed. The model was built using a bottom-up approach, based on analysis of data on agricultural production, storage, imports, exports, industry, distribution, and consumption of a sample of about 50 different food types<sup>2</sup>. The data also include processed products converted into fresh produce equivalents.

Fruit and vegetables account for a significant portion of food loss and waste in Israel, due to the fact that they constitute

Source: BDO estimates

a large portion of the country's agricultural output and because they are subject to particularly high loss rates throughout the value chain. This pattern is not unique to Israel; international comparisons show that loss rates for fruit and vegetables are similar across Europe. Compared to the United States, Israel's overall loss rate is lower, however the distribution of losses is different, with Israel experiencing lower losses during production and consumption and higher losses at the intermediate stages<sup>3</sup>.

The economic value of food loss and waste in Israel is estimated at approximately NIS 26.2b (USD \$7b), representing about 1.3% of the national GDP.

Roughly 6% of this loss stems from the wasteful use of natural resources, primarily land and water. Greenhouse gas emissions and air pollutants generated throughout the food value chain by the production of food that is ultimately not consumed add an estimated NIS 1.6b (USD \$432m), while the cost of treating discarded food and packaging waste is estimated at a further NIS 1b (USD \$270m).

Taken together, the total cost of food loss and waste, including the loss of natural resources, environmental emissions, and waste treatment, amounts to approximately NIS 30.4b (USD \$8.2b).

here are indicative and are intended as a basis for public discussion and ongoing research and analysis of the issue.

3. "Global Food Losses and Food Waste", FAO, 2011

2. We are aware that some deviation or inaccuracy in the estimates is inevitable, given the absence of official data. Moreover, the extent of food loss and waste varies from year to year due to changing and unpredictable factors such as extreme weather conditions, natural disasters, pest outbreaks, fluctuations in demand, and more. The figures presented

In quantitative terms, approximately 54% of food loss and waste occurs during the production, processing, retail, and distribution stages - before the food reaches household or institutional consumers. In monetary terms, about 56% of the total value of lost food is attributed to the household and institutional consumption stages.

Source: BDO estimates

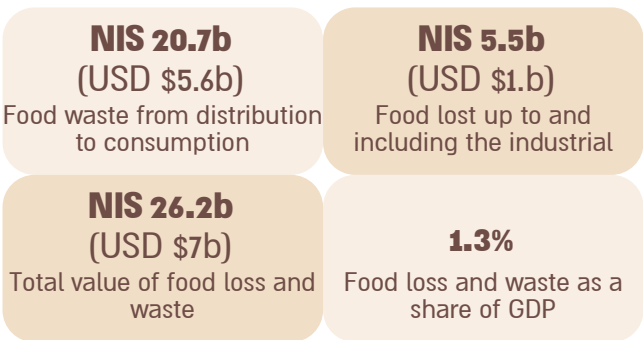
HOW MUCH FOOD CAN BE RESCUED?

NIS 9.9b (USD \$2.7b)  
value of rescuable food

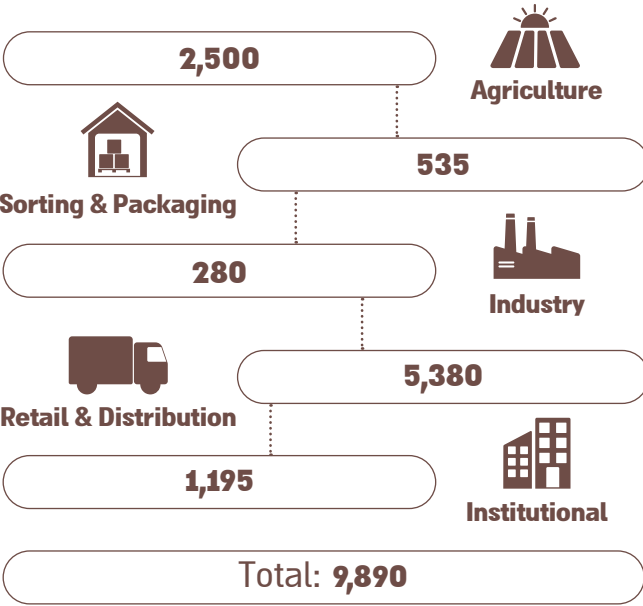
"The value of rescuable food in Israel is estimated at approximately NIS 9.9b (USD \$2.7b). Along the value chain, the more resources invested in growing, processing, packaging, and transporting food, the greater the value of lost and wasted food."

When it comes to food rescue, the key focus is on edible food, that is, food that is safe, nutritious, and suitable for human consumption, yet ultimately goes uneaten. Such waste occurs for various reasons across all stages of the value chain. In most cases, the underlying factor is the lack of economic incentive for food producers - be they farmers, manufacturers, or retailers - to invest additional resources in further processing or distribution.

Reducing food loss and waste, whether by preventing it at the source or by rescuing surplus that has already been produced, has become a key priority on the global public agenda. The estimate of rescuable food in this Report is based on a detailed value chain model developed specifically



Value of Rescuable Food Along the Value Chain, in Million NIS









for the food sector. For each type of food and each point of loss along the chain, the underlying causes were analyzed and the lost food was classified as either edible (rescuable) or non-edible.

It is important to emphasize that the classification of food as "rescuable" is based solely on food safety and the technical feasibility of redirecting it for human consumption, and does not reflect the economic viability of rescuing that food.

The value of rescuable food in Israel is estimated at NIS 9.9b (USD \$2.7b). Along the value chain, the more resources invested in growing, processing, packaging, and transporting food, the greater the value of that food when it is lost. As shown in the table below, the largest share of this value is concentrated in the retail and distribution stage. This is because food lost at this stage typically involves products that are already market-ready, i.e. prepared for sale and consumption, but are discarded before reaching the end consumer.



Estimated Volume of Rescuable Food in Israel, in Kilotons

	Total Consumption	Total Domestic Production	Lost Food	Rescuable Food	Loss Rate
 Fruit	1,130	1,530	505	170	35%
 Vegetables	1,885	1,505	1,060	645	60%
 Potatoes & Starches	370	590	235	160	39%
 Grains & Legumes*	1,530	250	400	75	26%
 Meat, Fish & Eggs	850	815	220	75	28%
 Milk & Dairy Products	1,640	1,705	220	65	13%
Total	7,375	6,395	2,640	1,190	39%

\* Grains and legumes loss was calculated based on consumption, as most grains are not produced in Israel.

Source: BDO estimates

This Report does not classify food waste at the household consumption stage as rescuable. Approaches to household food waste vary, particularly given the context of Western consumer culture, which is marked by abundance and excess. In many cases, consumers derive satisfaction not only from eating food, but also from the availability of variety, selection, and even surplus.

However, as food production involves the use of natural resources and results in environmental impacts, the price consumers pay often fails to reflect the full social

and environmental costs. These externalities, such as environmental degradation, are not embedded in the market price of food.

As such, there is a strong case for encouraging the reduction of household food waste. Public awareness campaigns, already implemented in several Western countries, serve this purpose by highlighting the hidden costs of uneaten food, ranging from unnecessary household spending to environmental damage.



Rescuable Food

- ✓ Edible agricultural produce that was never harvested
- ✓ Produce with cosmetic imperfections
- ✓ Unsold produce in wholesale markets
- ✓ Unsold food in supermarket chains and stores
- ✓ Surpluss prepared food from catering services, institutional kitchens, or restaurants
- ✓ Packaged food with cosmetic or packaging defects
- ✓ Food nearing its expiration date and unlikely to be sold



Non-Rescuable Food  
(Food Unfit for Human Consumption)

- ✗ Food contaminated by disease
- ✗ Food damaged by natural disasters and unfit for consumption
- ✗ Spoiled or rotten food
- ✗ Inedible by-products from food preparation (peels, seeds, skin, fat)
- ✗ Food that has left the kitchen and/or reached a plate but was not eaten





# THE IMPACT OF THE SWORDS OF IRON WAR ON FOOD LOSS AND RESCUE IN ISRAEL'S AGRICULTURAL SECTOR

The war underscored the importance of food rescue as a means of expanding food reserves and ensuring food security, both in routine times and during crises.

The Swords of Iron War exacerbated food loss in Israel and further undermined food security.

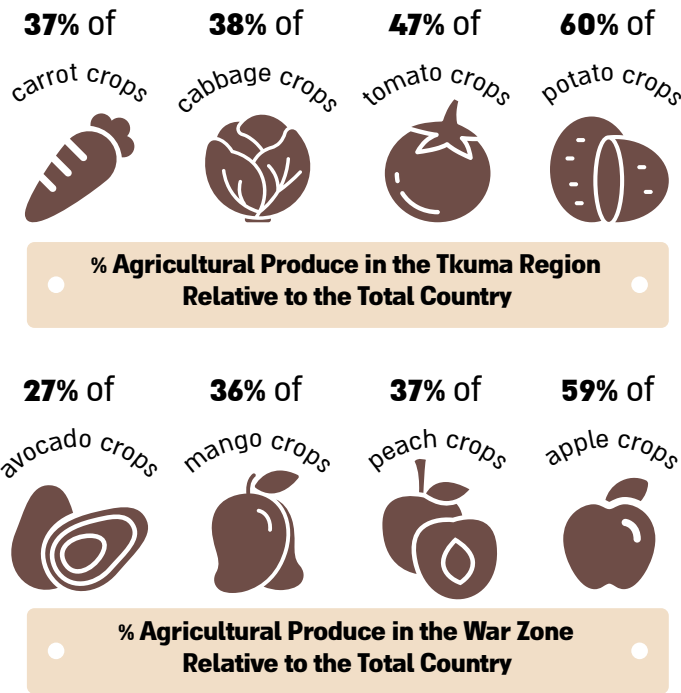
The exacerbation in food loss stemmed from limited access to agricultural lands, fires, and labor shortages, all of which disrupted the supply of fresh produce and contributed to rising fruit and vegetable prices. These combined factors deepened the blow to national food security. Loss of fruit and vegetables – key sources of vitamins, fiber, and essential nutrients – means less nutritious food available to the public, while the ongoing price rises are also likely to reduce fruit and vegetable consumption, particularly among low-income families, thereby negatively impacting nutritional quality and public health.

It is also likely that the war led to increased food loss in other parts of the food system, for example, due to factory shutdowns, panic buying and overstocking by consumers, or logistical challenges. However, these aspects were not addressed in this section.

Agricultural Produce in the Tkuma Region and the Conflict Zone along the Northern Border

In Israel, over 2.5m dunams of agricultural land are used for growing vegetables, fruit, and field crops. More than 30% of

Israel's agricultural areas are located in the front-line zones of the war<sup>4</sup>, with approximately 22% in the Tkuma Region (Gaza Envelope)<sup>5</sup> and about 10% in the northern border areas<sup>6</sup>, including 7% in the Galilee and 3% in the Golan Heights.



Source: CBS, Economic Impacts of the Swords of Iron War on the Agricultural Sector

4. According to data from the CBS, Economic Implications of the Swords of Iron War on the Agricultural Sector.  
5. The size of agricultural lands in regional councils in the Gaza Envelope, which include the Ashkelon Coast, Sha'ar HaNegev, Sdot Negev, Eshkol, and Merhavim.

6. The size of agricultural lands in regional councils along the northern border, which include the Upper Galilee, Mevo'ot HaHermon, Mateh Asher, Ma'ale Yosef, Merom HaGalil, and the Golan Heights.

The 2024 Food Waste and Rescue Report estimates that food loss and waste in Israel in 2024 totaled approximately 2.6m tons, a volume similar to that reported in the 2023 report<sup>7</sup>. This occurred despite a decline in both food production and consumption in 2024 due to the war, indicating an effective increase in the national food loss and waste rate.

These findings reveal that the war significantly exacerbated food loss in Israel primarily due to reduced access to agricultural land and a shortage of labor. These disruptions severely impacted the supply of agricultural produce, driving up prices for fruit and vegetables and further undermining food security.

Food loss and waste estimates in this Report are based on a unique value chain model tailored to Israel's food production system<sup>8</sup>. In 2024, food loss and waste was estimated at approximately 2.6m tons, representing about 39% of total domestic food production.

In 2024, due to the Swords of Iron War, agricultural production in Israel declined by approximately 6%, reaching around 6.7m tons.

Part of this decline stems from an increase in unharvested crops left in the fields in conflict zones or areas inaccessible due to labor shortages. The remainder is attributed to non-planting, also resulting from these same constraints. While both scenarios lead to a reduction in domestic agricultural output, there is a key distinction: crops left unharvested are classified as food loss according to internationally accepted methodologies, whereas non-planting – even though it reduces local production – is not considered food loss.

At the same time, volunteer efforts during the war helped mitigate food loss in the agricultural sector. Over the first nine months of the conflict, approximately 54,000 tons of agricultural produce, worth about NIS 240m (USD \$65m) were harvested through 900,000 volunteer workdays<sup>9</sup>. This large-scale rescue effort helped reduce food loss during this period from 23% to 20%.



7. Figures have been rounded for presentation purposes: in 2023, food loss totaled approximately 2.63m tons, and approximately 2.64m tons in 2024.  
8. The value chain model excludes beverages, stimulants, sugar, honey, and confectionery products.  
9. "Volunteer workday" refers to one full day of agricultural work performed by a single volunteer.



# **(4) FOOD WASTE AND RESCUE ALONG THE VALUE CHAIN: CHALLENGES, POTENTIAL, AND NATIONAL BENEFIT**





Food Waste and Rescue Along the Value Chain- Challenges, Potential, and National Benefit¹

The final three stages of the food value chain – retail and distribution, institutional consumption, and household consumption – are the primary sources of food loss and waste in Israel’s food system. Positioned closest to the end consumer, these stages reflect the full cost of production, transport, and logistics. Consequently, food wasted at this point not only represents significant economic waste but also has far-reaching social and environmental impacts.

FOOD WASTE AND RESCUE: RETAIL AND DISTRIBUTION SECTOR

In terms of value loss, the retail and distribution sector is one of the most significant in the food value chain. By the time food reaches this point, it has already undergone cultivation, processing, packaging, and transportation – making it ready for sale and consumption.

In 2024, the supply of agricultural produce marketed in Israel declined, partly due to the Swords of Iron War, which led to a temporary reduction in local production. Alongside the drop in supply, food prices rose sharply, resulting in an overall increase in the monetary value of food waste in the retail sector.

Total food waste in this sector reached approximately 455,000 tons, with an estimated value of NIS 6.7b. (\$1.81b) Of this, about 360,000 tons, worth NIS 5.4b², (\$1.46b) were rescuable. In addition, the environmental cost of food waste at the retail and distribution stage is estimated at NIS 920m³, (\$249m) with a public health cost of approximately NIS 1.3b (\$350m).

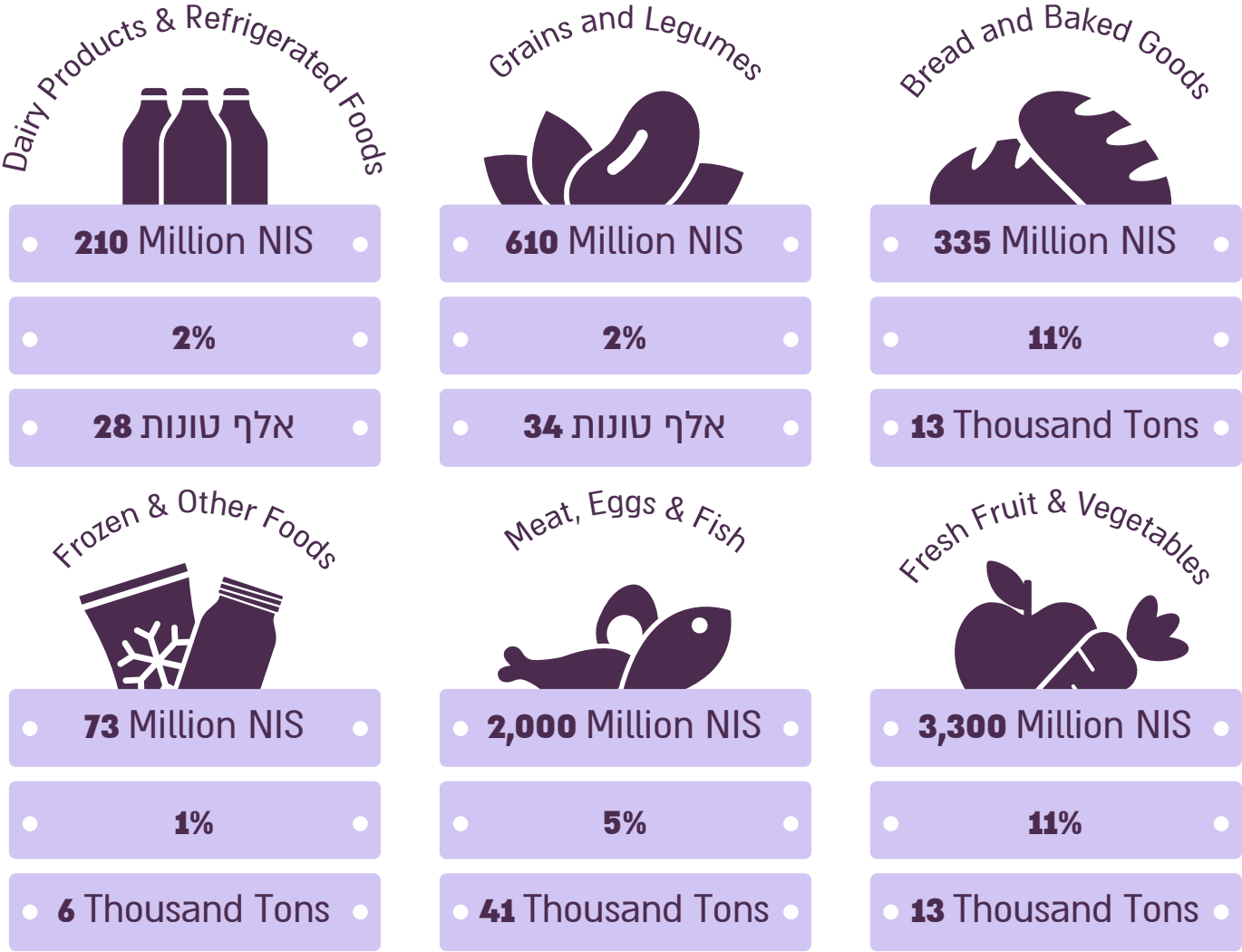


1. In this Report, “the retail and distribution sector” refers to all food waste occurring from the end of the production stage to the point of sale to consumers. This includes market-ready finished goods wasted at the producer level, wholesale waste, returns from retailers to producers, and waste within retail operations. The total food waste in this sector reflects the combined waste across all these stages.

2. The estimate of rescuable food in this stage is based on BDO’s retail sector model, which incorporates CBS data as well as information provided by major retail chains.

3. This environmental cost is not reflected in the market price of the lost food, which does not include the cost of natural resources lost due to food waste in this sector.

Financial Loss in the Retail and Distribution Sector



As demonstrated in the table above, the highest food waste rates occur in the fruit and vegetables, meat and fish, and bread categories – all of which have short shelf lives and are highly sensitive to storage conditions and timing.

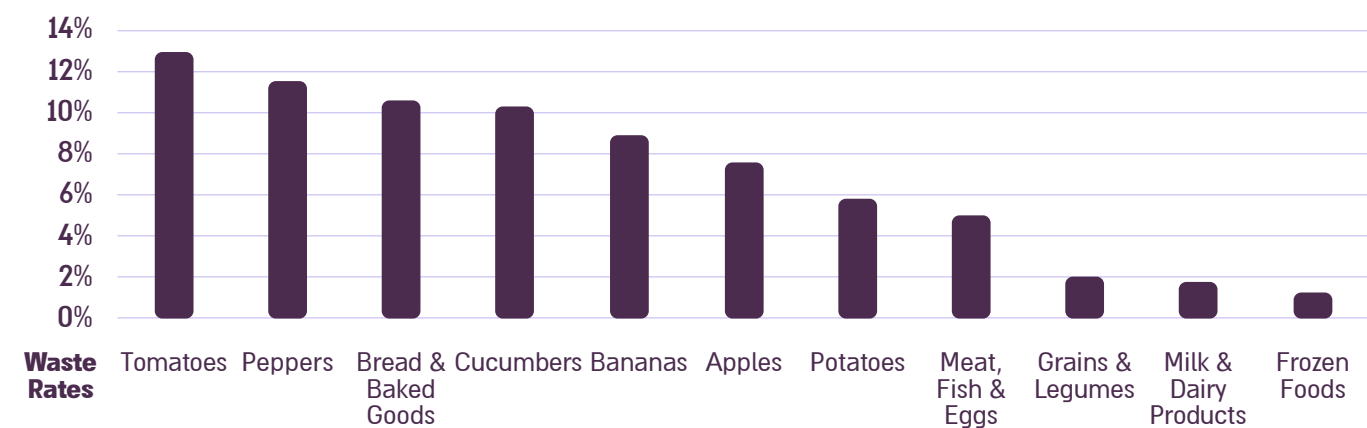
Key drivers of food waste in the retail and distribution sector:

- 1. Shelf life - Food that is not sold before its expiration date is deemed unsuitable for sale or donation and is removed from circulation. Contributing factors include inaccurate inventory planning, return policies to importers, and the lack of incentive mechanisms for surplus redistribution – all of which lead to the disposal of large amounts of edible food.
- 2. Aesthetic imperfections - Products with damaged packaging, dents, or altered appearance are often rejected for sale, despite being completely safe and suitable for consumption.
- 3. Logistical damage - Items such as dropped fruit, broken eggs, and butcher shop remnants result in unavoidable waste, however their overall volume is relatively low.

Market Failure: Structural Food Surpluses

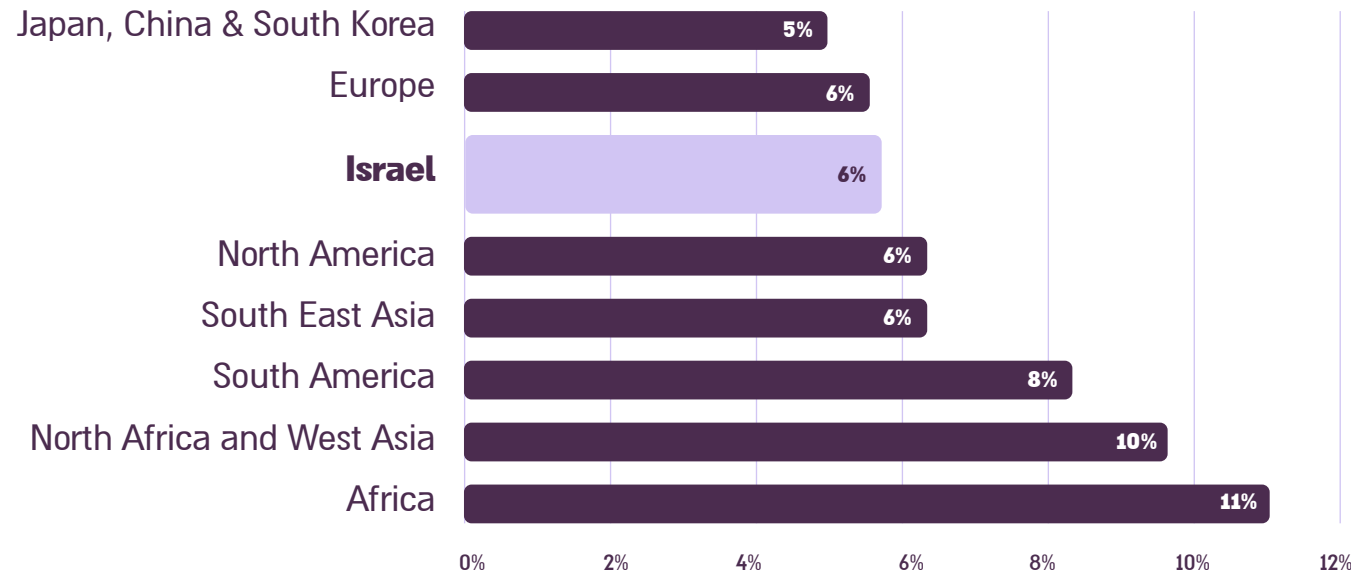
Despite significant investments by retailers in inventory management, refrigeration systems, and forecasting tools, structural food surpluses persist in this sector. Retailers prefer to maintain a full range and high availability of products to avoid empty shelves, which could lead to customer loss. This creates a commercial incentive to prioritize surplus over shortage, even when it results in systematic food waste. In addition, return agreements with suppliers, where unsold goods are returned to the producer at no cost, effectively remove the retailer’s responsibility to reduce actual waste. This creates a market failure, as there is no economic incentive to rescue surplus food.

Food Waste Rates in the Retail and Distribution Sector for Selected Food Categories



Waste rates are highest in fresh and highly perishable categories such as fruit, vegetables, bread, and fish, while more durable items like frozen foods and legumes show significantly lower levels of waste.

International Comparison



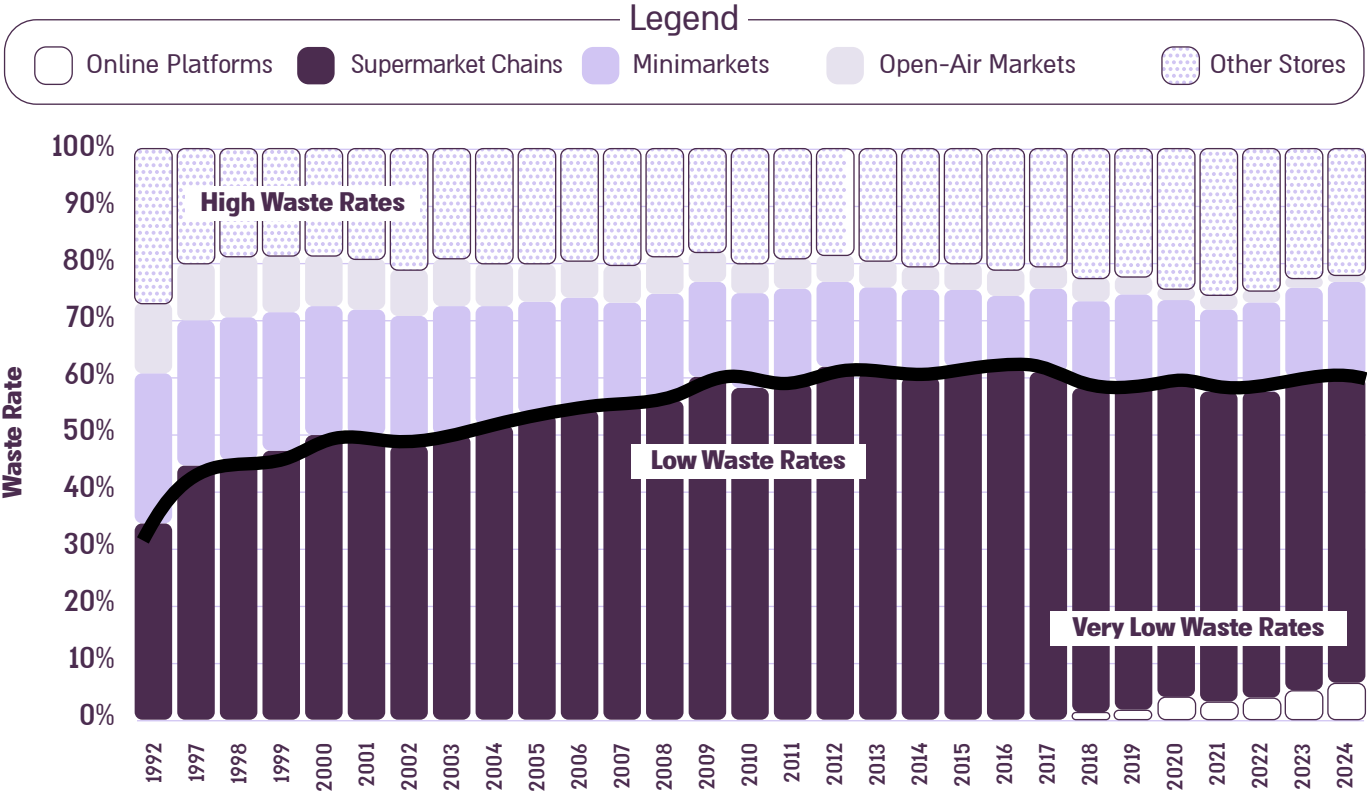
When compared internationally, food waste rates in Israel's retail and distribution sector are similar to those in developed countries, despite the country's hot and humid climate, which increases the risk of spoilage. This suggests that inventory and waste management practices in the sector are maintained at relatively high standards. In contrast, developing countries typically experience significantly higher waste rates, primarily due to insufficient infrastructure for distribution, storage, and marketing.

In recent years, food retailers have invested heavily in advanced logistics centers, digital inventory management

and demand planning systems, and the maintenance of cold chains during distribution. These developments have significantly contributed to reducing food waste in the retail and distribution sector.

Concurrently, since the COVID-19 pandemic, consumer purchasing patterns have increasingly shifted toward supermarket chains and online platforms - channels typically associated with lower rates of food waste. As a result, this sector has seen a modest decline in food waste over the past year.

Shift in Consumer Behavior Toward Stores with Lower Food Waste Rates



The ongoing shift in consumer behavior toward low-cost, efficient retail chains, and particularly online shopping platforms, has led to a slow but steady decline in food waste rates. According to the 2024 UN Conference on Trade and Development (UNCTAD) report<sup>4</sup>, consolidating deliveries and reducing individual travel to retailers can cut transit-related greenhouse gas emissions in the retail sector by up to 87%, providing an additional environmental incentive to favor retailers with optimized shelf management.

**Food Rescue Potential in the Retail and Distribution Sector:** Approximately 360,000 tons of food waste at this stage are rescuable - primarily fruit and vegetables (225,000 tons). Food rescue at this stage alone could offset nearly 50% of the national food gap experienced by those living with food insecurity. Rescuing this volume of food could also save the Israeli economy an estimated NIS 2.9b (\$780m) annually in excess healthcare costs (see Chapter 5).

- Actions to Reduce Food Waste and Promote Food Rescue:**
- In addition to the structural causes of food waste, the retail and distribution sector also sees ongoing efforts to reduce waste and rescue edible food. Retailers and producers have adopted a range of waste-reduction practices, some driven by economic incentives, others by social responsibility commitments. These include:
- **Discounted sales of surplus** - Products close to their expiration date or with minor packaging defects are sold at reduced prices to consumers.
  - **Food donations to nonprofit organizations** - Coordinated through formal partnerships or local branch initiatives.
  - **Secondary market channels** - Products with aesthetic or packaging flaws that are still safe to eat are sold through alternative distribution networks.
  - **Rescue of surplus from production facilities** - Manufacturers donate production overruns or short-dated products through specialized nonprofit organizations.
- While these efforts help reduce the amount of rescuable food waste, the potential for food rescue in the retail sector remains significant and requires systematic, structural incentives to be fully realized.

4. Digital Economy Report 2024: Chapter V: E-commerce and environmental sustainability



# FOOD WASTE AND RESCUE: INSTITUTIONAL CONSUMPTION SECTOR

## The institutional sector saw significant changes in food consumption and dietary trends during 2024

**Impact of the War and Reservist Mobilization:** As a result of the Swords of Iron War, the average monthly number of reservists rose to approximately 140,000, driving increased food demand in IDF kitchens and other defense-related logistical operations. At the same time, the absence of reservists from their civilian workplaces led to reduced food consumption in workplace cafeterias and institutional dining facilities across various organizations and industries. Thus, while the overall volume of institutional food consumption remained stable, **its distribution shifted significantly across different types of institutional settings.**

**Changes in Workplace Food Consumption** - Since the outbreak of COVID-19, significant changes have occurred in work patterns. Most notably, regular office attendance has declined. According to a 2023 report<sup>5</sup> by the Ministry of Labor, approximately 18% of Israeli employees work from home at least one day a week. This shift to a hybrid work model has had mixed effects on food waste: on one hand, having fewer employees on-site has led to reduced waste in institutional catering systems; on the other hand, uncertainty about the number of diners each day makes logistical planning more difficult for food providers, leading to increased food waste.

In addition, the growing trend of ordering individual meals through apps like Wolt and 10Bis has led to a decline in the use of traditional workplace cafeterias. While this shift reduces overall food waste - since meals are prepared on

230,000

tons of food

were wasted in the institutional consumption sector in 2024

demand - it also complicates efforts to collect and redistribute surplus food. Although comprehensive data is lacking on the extent to which institutional meals have been replaced by delivery services, and some of this shift has also replaced dining in nearby restaurants, field observations and data from Leket Israel's cooked food rescue operations indicate that some workplaces have stopped using centralized catering altogether, thereby limiting logistical opportunities for surplus food rescue.

**In the hotel industry,** overnight stays declined by 14% in 2024 compared to 2023. The impact of the war was evident: international tourism dropped sharply, while at the same time, the number of Israeli guests staying in hotels, including evacuees, increased.

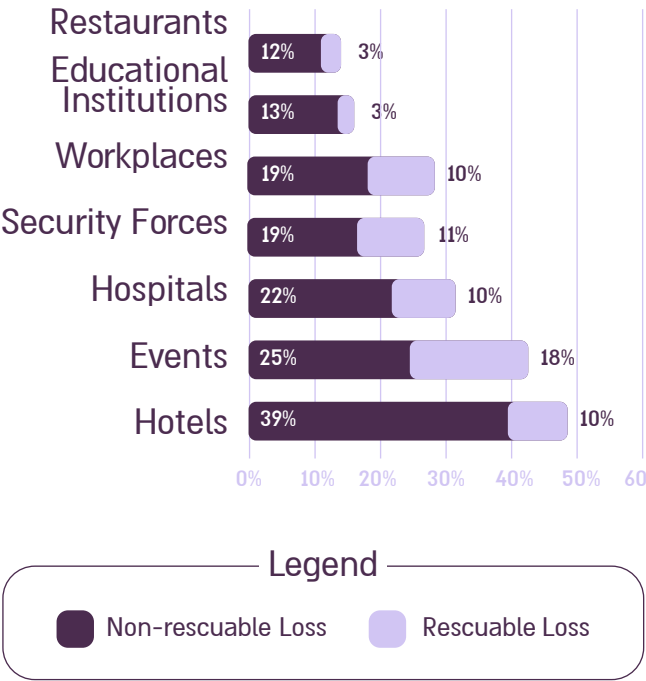
**The events industry** also faced a particularly challenging year. The prolonged conflict and security escalation in northern Israel led to the postponement or cancellation of thousands of events. Many couples were forced to cancel weddings in areas under direct threat in light of Home Front Command guidelines and concerns for guests' safety. In addition, thousands of reservists called up during the war had to postpone their weddings repeatedly.

According to assessments done for this Report<sup>6</sup>, over 2 million people in Israel dined outside the home on an average day, consuming an average of 1.1 meals per day. This amounts to approximately 720 million out-of-home meals per year, and about 800,000 tons of food. The total annual expenditure on food consumed outside the home is estimated at NIS 15b (4.05b).

### Food Waste in Institutional Consumption

Food waste in the institutional consumption sector is estimated at approximately 230,000 tons in 2024, with a total monetary value of about NIS 4b (\$1.08B). Of this, around 77,000 tons, worth approximately NIS 1.25b (\$340m), are rescuable. Rescuing this volume could provide roughly 67 million full, nutritionally balanced meals.

### Food Waste Rates by Industry within Institutional Consumption



### Sources of Food Waste in Institutional Settings

Food waste occurs across a wide range of institutional environments, including hospitals, educational institutions, workplaces, hotels, restaurants, nursing homes, industrial facilities, and event venues. In these settings, food waste is primarily caused by poor planning, unexpected fluctuations in the number of diners, varying dietary requirements, logistical inefficiencies, and overproduction in central kitchens.

The type of food service and payment model also influence food waste levels. For example, in restaurants where meals are prepared to order, waste rates are low, in contrast to buffet-style service, which requires food to be prepared in advance. In other words, when consumers pay based

on actual consumption, food waste is lower than in all-inclusive models.

The increase in food consumption and waste compared to 2023 is attributed to a combination of factors: population growth, a rise in employment, increased security force activity during the war, and higher hospital bed occupancy. However, these increases are tempered by overlapping trends, including a sharp decline in the events sector, reduced activity in restaurants and cafés, lower hotel occupancy rates, and decreased operations in educational institutions.

Approximately 35% of rescuable food waste occurred at events, where an estimated 19,000 tons of food worth about NIS460 m (\$124m) could have been rescued in 2024. Military bases, hotels, and workplaces represent additional key rescue opportunities, each with potential food rescue values ranging between NIS120 m (\$32m) and NIS240 m (\$65m), and in hospitals, the estimated value of rescuable food is NIS70 m (\$19m). While restaurants also generate a significant amount of rescuable food, estimated at NIS160 m (\$43m) per year, the cost-effectiveness of rescue operations is generally low due to the wide geographic dispersion and lack of critical volume.

The high return on food rescue in the institutional sector is driven by the relatively high value of each rescued meal, combined with the comparatively low logistical costs of collecting food from large kitchens located in densely populated urban and industrial areas.

The 76,000 tons of rescuable food generated annually in the institutional consumption sector could help close approximately 12% of the nutritional gap faced by individuals experiencing food insecurity in Israel. In addition, rescuing this food could yield public health cost savings of roughly NIS 0.7b (\$190m) each year.

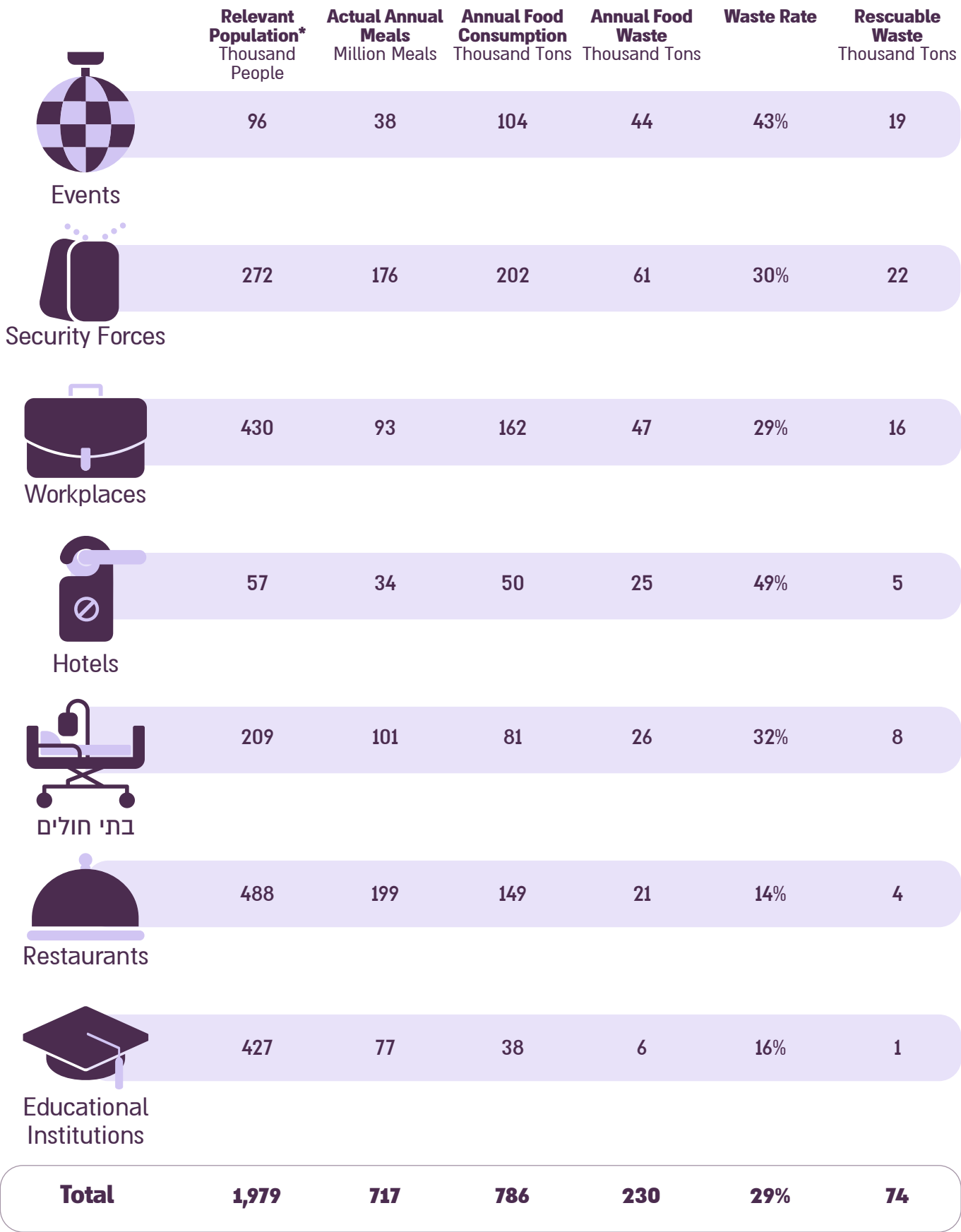


5. Ministry of Labor Report, 2023

6. The BDO model for assessing food waste in the institutional sector is based on data from the CBS, the Israeli Restaurant Association, the Association of Banquet Hall, Event Venue, and Catering Owners, and the Security Forces.



Summary of Estimated Food Waste in Institutional Consumption



This estimate is based on the number of relevant working days in each category and accounts for internal variations within each population group.

Annual Summary: Rescuable Food Waste in Institutional Consumption (Financial Value)





# FOOD WASTE AND RESCUE: HOUSEHOLD CONSUMPTION SECTOR

**NIS 10B (\$2.7B)**

Total value of household food waste in 2024

**NIS 4,500 (\$1,200)**

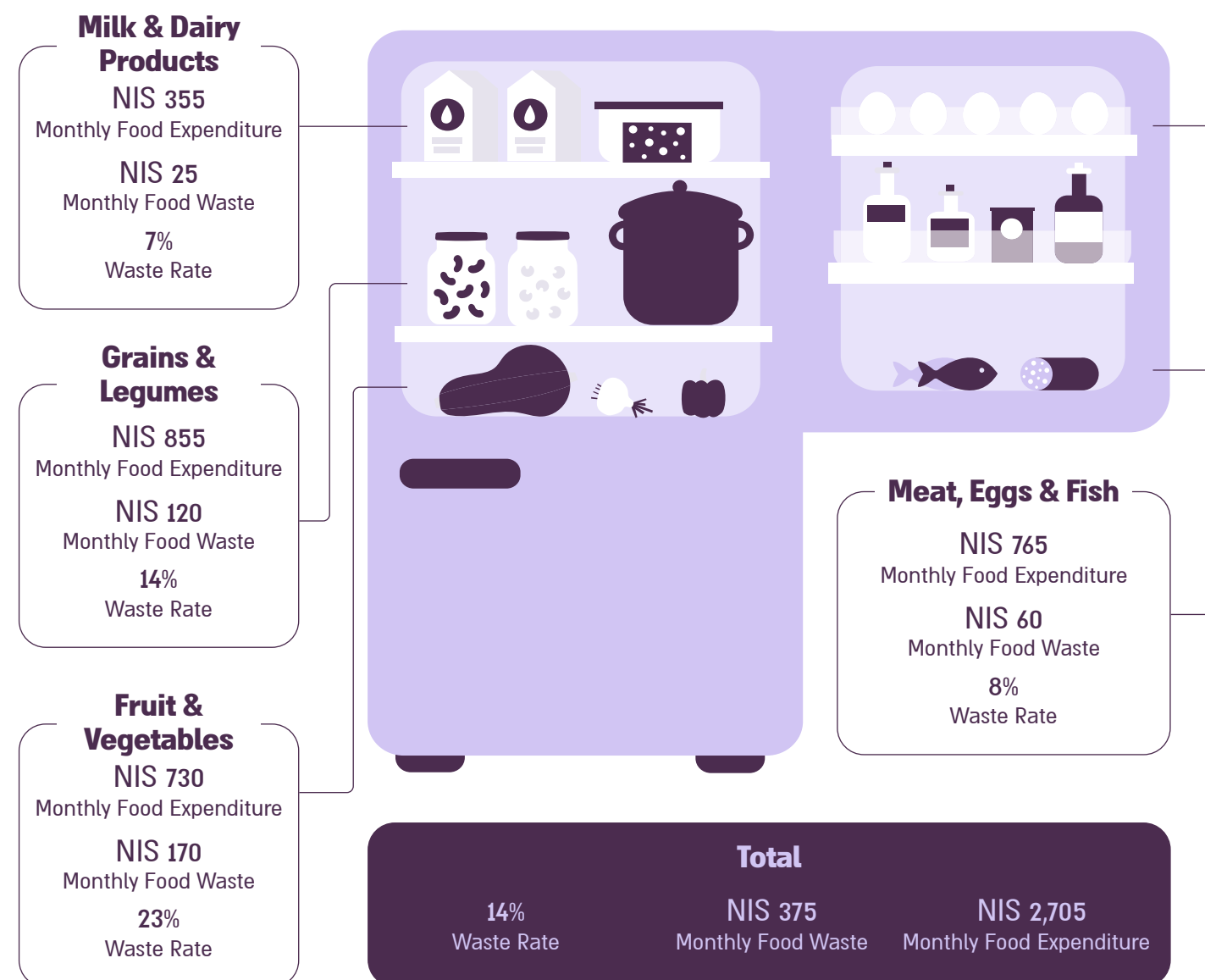
Average annual food waste per household in Israel

In the wake of the Swords of Iron War, institutional food consumption declined, particularly in restaurants, event venues, and educational institutions. At the same time, household food consumption rose, leading to a corresponding increase in food waste at the household level.

In 2024, Israeli households wasted an estimated 960,000 tons of food<sup>7</sup>, valued at approximately NIS 10b (\$2.7b). Beyond this direct financial cost, the environmental impact of this waste is estimated at an additional NIS 0.9b (\$240m)<sup>8</sup>.

In 2024, the average Israeli household wasted about 14% of its annual food expenditure – roughly NIS 4,500 (\$1,200), equivalent to more than six weeks' worth of food. This translates to a monthly loss of around NIS 375 (\$101) in the household consumption sector, broken down as follows: NIS 170 (\$46) from fruit and vegetables, NIS 120 (\$32) from grains and legumes, NIS 60 (\$16) from meat, eggs, and fish, and NIS 25 (\$7) from milk and dairy products.

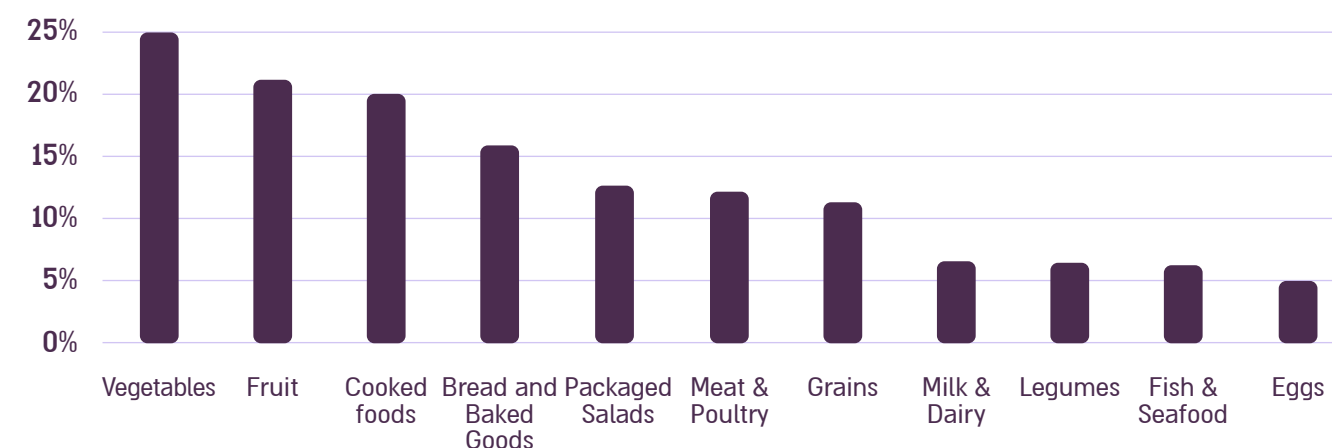
## Household Food Waste: Monthly Breakdown (NIS)



Household food waste stems from a combination of consumer behavior, a culture of abundance, and improper food storage that affects freshness.

## Food Waste Rates in the Household Consumption Sector

For selected products, as a share of total consumption of those products



Source: BDO Estimates

7. This analysis is based on the BDO value chain model, weighted data from the CBS (2023), the national waste composition survey by the Ministry of Environmental Protection (2012–2013), a Geocartography survey conducted in January 2019, and the study by Dr. Ofira Ayalon, Efrat Elimelech, and Eyal Ert: "What Gets Measured Gets Managed: A New Method of Measuring Household Food Waste" (Waste Management, 2018).

8. The environmental cost presented here does not reflect the market value of the food waste, but rather the external cost of lost natural resources associated with food waste in this sector.



Key Drivers of Household Food Waste: Overpreparation and Expired Products



In Israel, where food expenditure is relatively high by international standards<sup>10</sup>, food waste is a major driver of the cost of living

Household food waste stems from a combination of consumer behavior, a culture of abundance, and improper food storage. The total annual value of food waste from household consumption is estimated at approximately NIS 10b (\$2.7b).

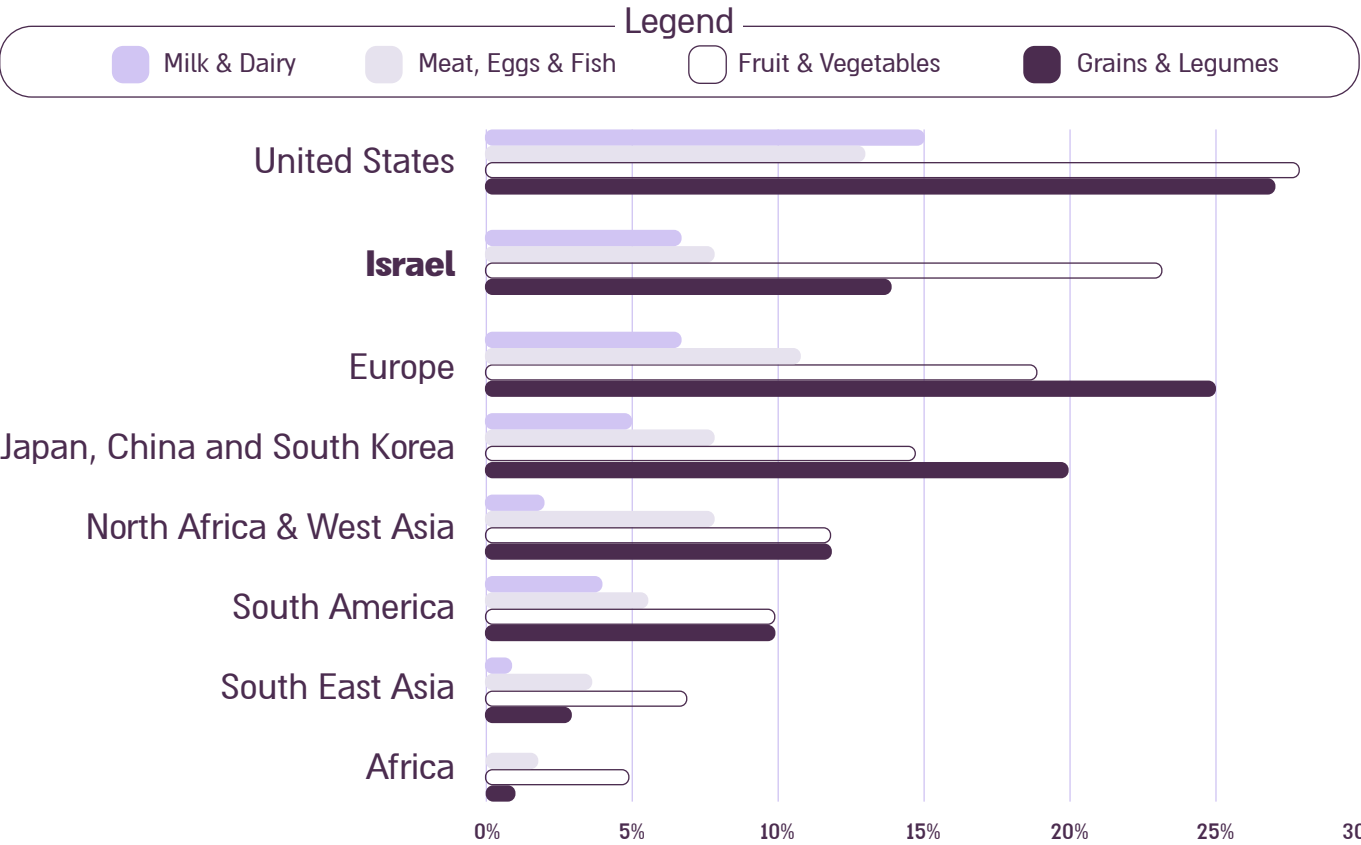
**The primary causes of household food waste include<sup>9</sup>:**

**Overpreparation** - Cooking or preparing more food than is needed, often resulting in leftovers that go uneaten. This phenomenon is frequently linked to over-purchasing.

**Expired Products** - Food that is not consumed before its expiration date, often due to purchasing more than the household can reasonably use. A desire for variety, combined with uncertainty about daily consumption needs, frequently results in food expiring before it is eaten.

**Over-purchasing** - Buying more than needed, which increases the likelihood of food being wasted. Additional causes of household food waste include spillage, damage, and improper food preparation or cooking.

Household Food Waste in Israel Compared to Global Averages



9. Based on findings from the Geocartography survey conducted in March 2021 by Leket Israel and BDO.

10 . Global Food Security Index Economist (2022)

Annual Household Food Waste – 2024

	Milk & Dairy	Grains & Legumes	Fruit & Vegetables	Meat, Eggs & Fish
Loss (Million NIS)	600	3,200	4,600	1,600
Waste Rate	7%	14%	23%	8%
Waste (Thousand Tons)	90	175	645	55

Total: 10,000 million NIS

Household food waste is not unique to Israel, and the country's rates are broadly in line with those of other developed nations. As in many Western countries, the highest rate of food waste in Israel occurs in the fruit and vegetables category: 23% of all fruit and vegetables purchased in Israel are thrown away, compared to 28% in the United States and 19% in Europe. This relatively high rate is largely due to the short shelf life of fresh produce and suboptimal storage practices. In contrast, the waste rate for meat, fish, and dairy products is significantly lower, standing at around 8%. This is partly due to the ability to extend shelf life through freezing, as well as the relatively high cost per unit, which creates a stronger financial incentive to minimize waste. These rates are comparable to those in Europe and lower than those observed in the United States.

The household food waste rate for grains and legumes is approximately 14%, reflecting a mix of products with varying shelf lives – from short-lived items like bread and baked goods to long-lasting staples such as uncooked grains and legumes.

NIS 10,785 (\$3,000)

Total Annual Impact of Food Waste on the Cost of Living per Household<sup>11</sup>

In Israel, where household food expenditure is relatively high by international standards<sup>12</sup>, food waste is a major driver of the cost of living. This includes both the direct cost of wasted food and the indirect effect of food waste on rising food prices. The total impact on the cost of living from household food waste is estimated at an additional NIS 10,785 (\$3,000) per household per year.

Food Waste: Impact on the Cost of Living

	Annual Cost per Household (NIS)	Impact on Food Prices
Cost of food wasted at home	4,455 ₪	-
Health costs due to missed food rescue opportunities	1,885 ₪	-
Cost of collecting and landfilling discarded food	210 ₪	-
Cost of collecting and landfilling discarded food	235 ₪	-
Retail price increases due to food waste at supermarkets	2,050 ₪	6%
Wholesale price increases due to losses in agriculture and industry	1,950 ₪	6%
Total	10,785 ₪	12%

11. Cost of living, including taxes and external costs.

12. Global Food Security Index Economist 2018



**Cost of Living - Direct Expenditure:** Food purchased by households and subsequently discarded constitutes a direct financial loss. On average, the monthly household losses from wasted food, excluding external costs<sup>13</sup>, is estimated at NIS 375 (\$101), totaling about NIS 4,500 (\$1,216) per year. In addition, the cost of collecting and landfilling food waste is ultimately borne by consumers through municipal taxes and property fees, adding an estimated NIS 210 (\$57) per household annually for the disposal of excess food.

**Cost of Living - Rising Food Prices:** Beyond the direct cost of food that is purchased but not consumed, food loss at earlier stages of the value chain also drives up prices. Economically, food prices reflect the cumulative costs of production and distribution across the entire value chain – including growing, processing, packaging, transportation, and marketing. Retail prices incorporate waste that occurs at the retail level, while wholesale prices reflect losses in agriculture and food manufacturing. Ultimately, these embedded costs are passed on to consumers, resulting in an additional annual burden of approximately NIS 4,000 (\$1,080) per household – equivalent to a 12% increase in food prices.

**Cost of Living - Health Impact of Untapped Food Rescue Potential:** The health consequences of failing to rescue surplus food – and thereby reduce food insecurity – also contribute indirectly to the cost of living. Food insecurity is a well-documented risk factor for both chronic physical illnesses and mental health conditions. At the national level, it places an added burden on the healthcare system, leading to increased public health expenditures. In 2024, the health-related costs of food insecurity were estimated at approximately NIS 5.8b (\$1.57b), or about NIS 1,950 (\$527) per household. (See Chapter 5 for further details.)

**Cost of Living - Environmental Impact from Emissions:** Food waste also drives up the cost of living through its environmental impact. The greenhouse gas emissions and air pollutants generated by wasted food create negative externalities that harm ecosystems and public health. These environmental damages translate into economic costs – mainly through increased healthcare spending and reduced social welfare<sup>14</sup>. In 2024, the external environmental cost of

food waste to the Israeli economy was estimated at NIS 1.6b (\$430m), or approximately NIS 235 (\$63) per household.

Beyond its direct impact on the cost of living, food waste and the associated processes of waste collection and landfilling also generate indirect costs. These stem from secondary effects such as waste transportation, fuel combustion, and environmental damage from greenhouse gas emissions, as detailed in this Report. Other impacts not captured in the environmental cost estimates presented here include increased road congestion and soil contamination.

Furthermore, landfilling organic waste causes it to decompose, releasing methane gas – a greenhouse gas whose Global Warming Potential (GWP) is 84 times higher than that of carbon dioxide over the short term (20 years), and 28 times higher over the long term (100 years)<sup>15</sup>.

According to the findings of the 2024 Food Loss Report, 960,000 tons of household food waste were sent to landfills, resulting in approximately 300,000 additional garbage truck trips per year. These trips contribute to air pollution, road congestion, noise disturbances, and traffic accidents. Therefore, beyond the NIS 10b (\$2.7b) worth of food waste through household consumption and the NIS 0.7b (\$190m) cost of disposing of household food waste, additional external costs were incurred due to the environmental and traffic-related impacts.



13. External costs not included in this estimate include waste collection and landfill expenses for discarded food, the environmental impact of greenhouse gas and air pollutant emissions, and wholesale price increases driven by food loss in agriculture and industry.

14. The Green Book: Evaluation and Measurement of Environmental Costs, Ministry of Environmental Protection, 2024.

15. IPCC, 2014: Climate Change 2014: Synthesis Report





# **(5) FOOD INSECURITY IN THE WORLD AND IN ISRAEL: HEALTH AND ECONOMIC IMPACTS**





# GLOBAL FOOD INSECURITY

According to the World Health Organization (WHO) and the United Nations, whose definitions are also used by Israel's National Insurance Institute, food security is achieved when the following four criteria are met:

- a. Availability: There must be a sufficient quantity and quality of food available.
- b. Access: Households must have the economic, social, and physical means to obtain enough food to meet their dietary needs.
- c. Utilization: At the individual level, this includes proper nutrition, dietary diversity, and safe food consumption, supported by access to sanitation, clean water, and awareness of proper food use.
- d. Stability: Reliable, consistent access to adequate food across all levels and over time and not at risk from sudden shocks.

**Food security is not only about preventing hunger but also about ensuring food quality. The right to food is not measured solely in caloric intake but also in nutritional value. Economic access to a healthy food basket - one that provides essential nutrients for physical, mental, and cognitive well-being - is a fundamental requirement for achieving food security.**

The State of Food Security and Nutrition in the World, a report published in 2022 by the UN Food and Agriculture Organization (FAO) in collaboration with the WHO, presents estimates of food insecurity rates in countries around the world. The report's findings include indicators showing that food security around the world has deteriorated since 2020.

Long-term effects of the COVID-19 pandemic, disruptions in global supply chains, the economic impact of the Russia-Ukraine war (particularly on grain production), and extreme climate events have all contributed to rising food prices. As a result, more people worldwide are unable to afford a healthy diet.

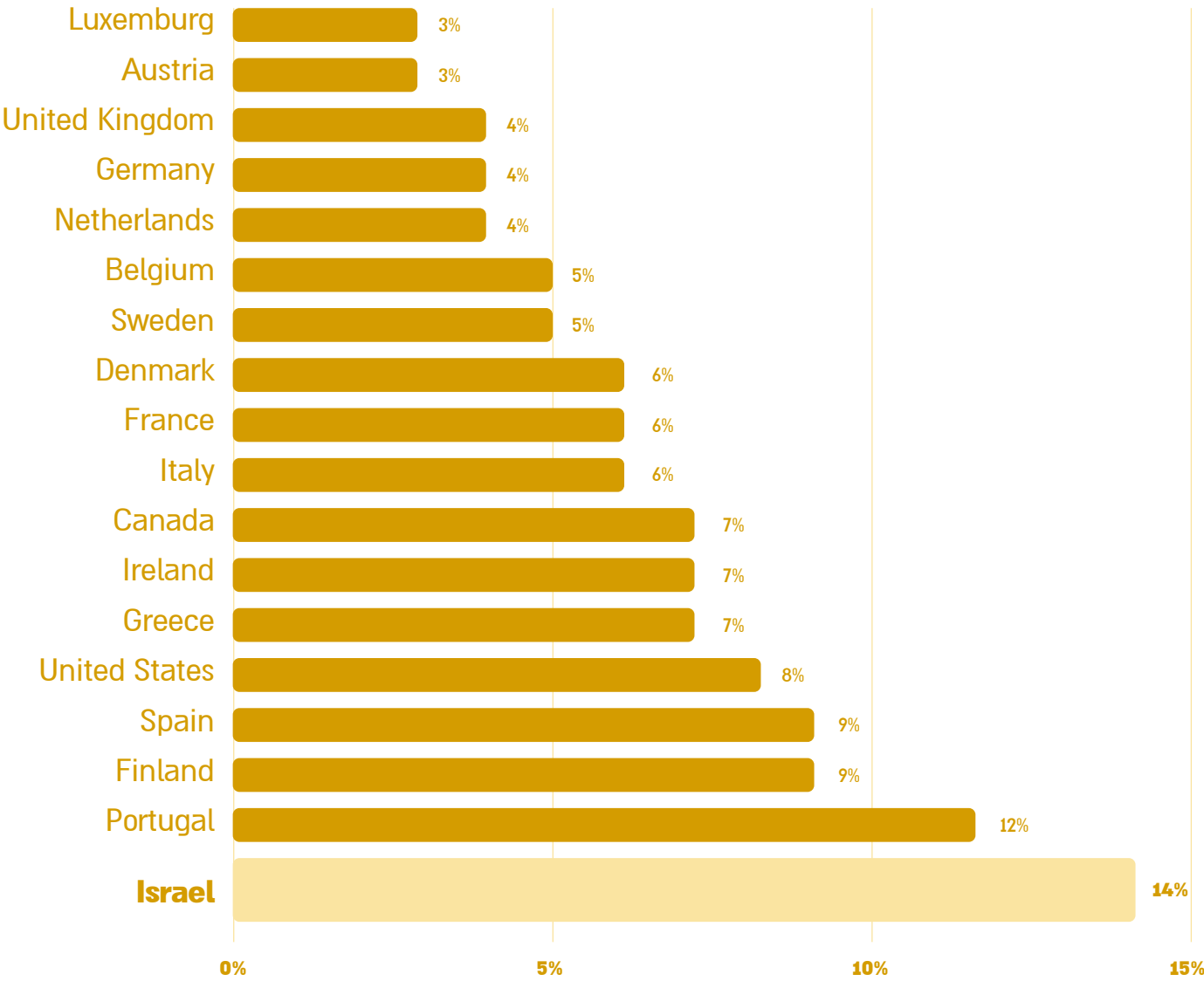
Data from the FAO shows that food insecurity in Israel is among the most severe in the OECD.



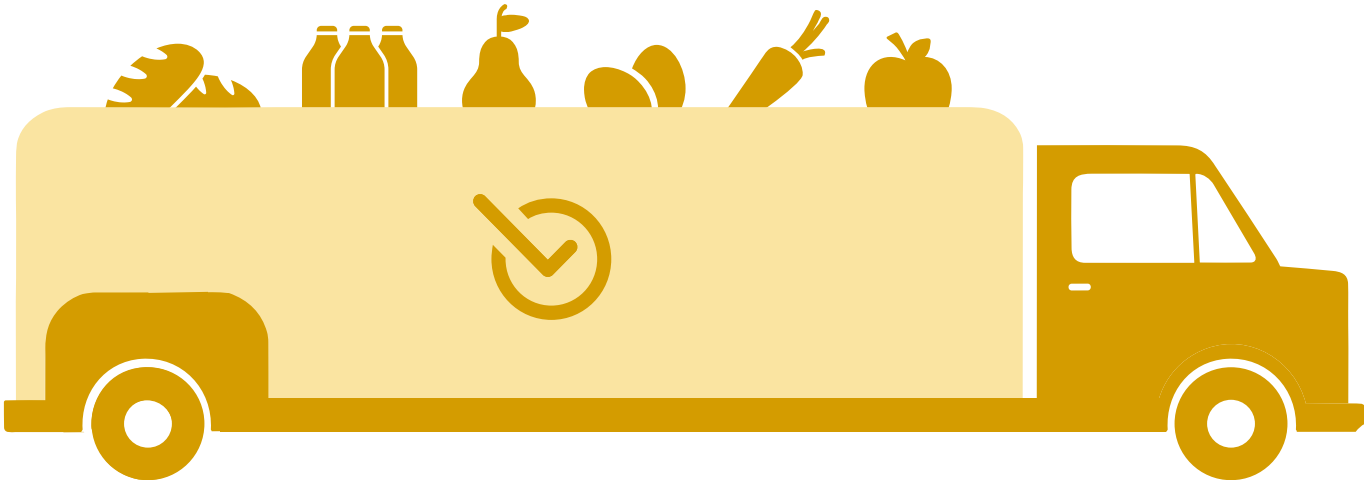
Food Insecurity in Israel Is  
Among the Most Severe in the OECD



Food Insecurity Rate among the Population  
Israel, Canada, the United States, and EU-15 Countries, 2019-2021



Source: FAO





# FOOD INSECURITY IN ISRAEL

According to the Israel's National Insurance Institute Poverty Report, published in January 2023, 16.2% of households in Israel experienced food insecurity in 2021<sup>1</sup>. Of these, 8.2% faced severe food insecurity, while 8% experienced moderate or mild food insecurity. The report also indicates that for three consecutive years, Israel has ranked as the second-highest in poverty rates among OECD countries and fifth among countries in the GINI index in terms of income inequality.

Israel's Ranking in Inequality and Food Security Indices

	Israel	OECD Average	Israel's OECD Ranking
Inequality (GINI Index <sup>2</sup> )	0.37	0.32	5
Poverty Incidence <sup>3</sup>	21%	11%	2
Food Security Index <sup>4</sup>	75	76	23
Food Expenditure as a Share of Private Consumption	18%	14%	7

Source: OECD Stat; Israel – Inequality and Poverty Incidence – BDO analysis based on 2021 National Insurance Institute estimates and the Global Food Security Index.

According to OECD data, which measures poverty rates after taxes and transfers (based on a poverty line set at 50% of median disposable income), Israel has the highest poverty rate among OECD countries, though its rate is similar to that of the United States.

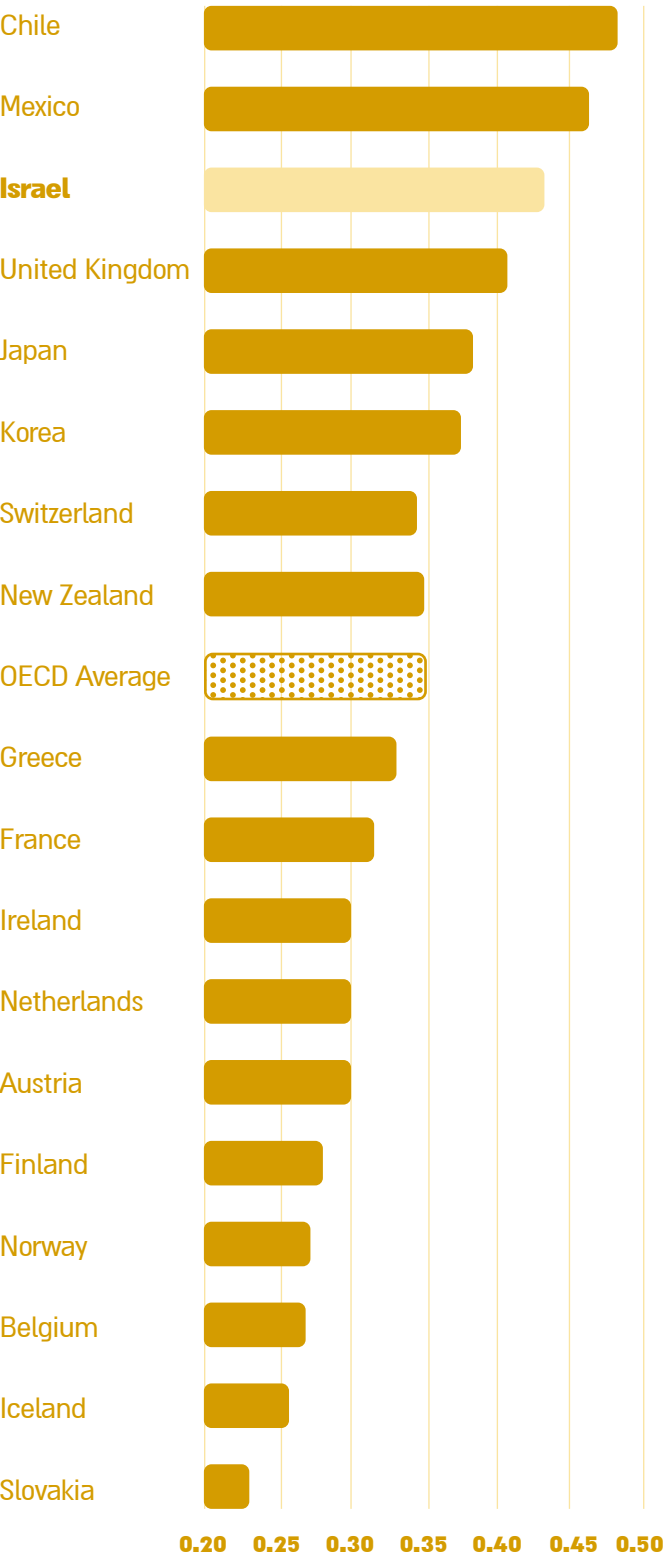
The data also indicates that Israel ranks among the countries with the highest income inequality, according to the Gini Index, a measure of economic disparity within countries. Israel places fifth after the Czech Republic, Mexico, Turkey, and the United States.



1. The estimates within the National Insurance Institute's Poverty Report, on which this Report's methodology is based, should be distinguished from the Food Security Report, published on November 24. The National Insurance Institute's Poverty Report is based on multi-year income data from the Central Bureau of Statistics, which is official,

comprehensive, and consistent, therefore allowing for comparisons between periods. The Food Security Report is based on an independent survey by the National Insurance Institute's Research Administration, which aims to measure actual nutritional gaps. This is a separate, complex index, which also measures food distress

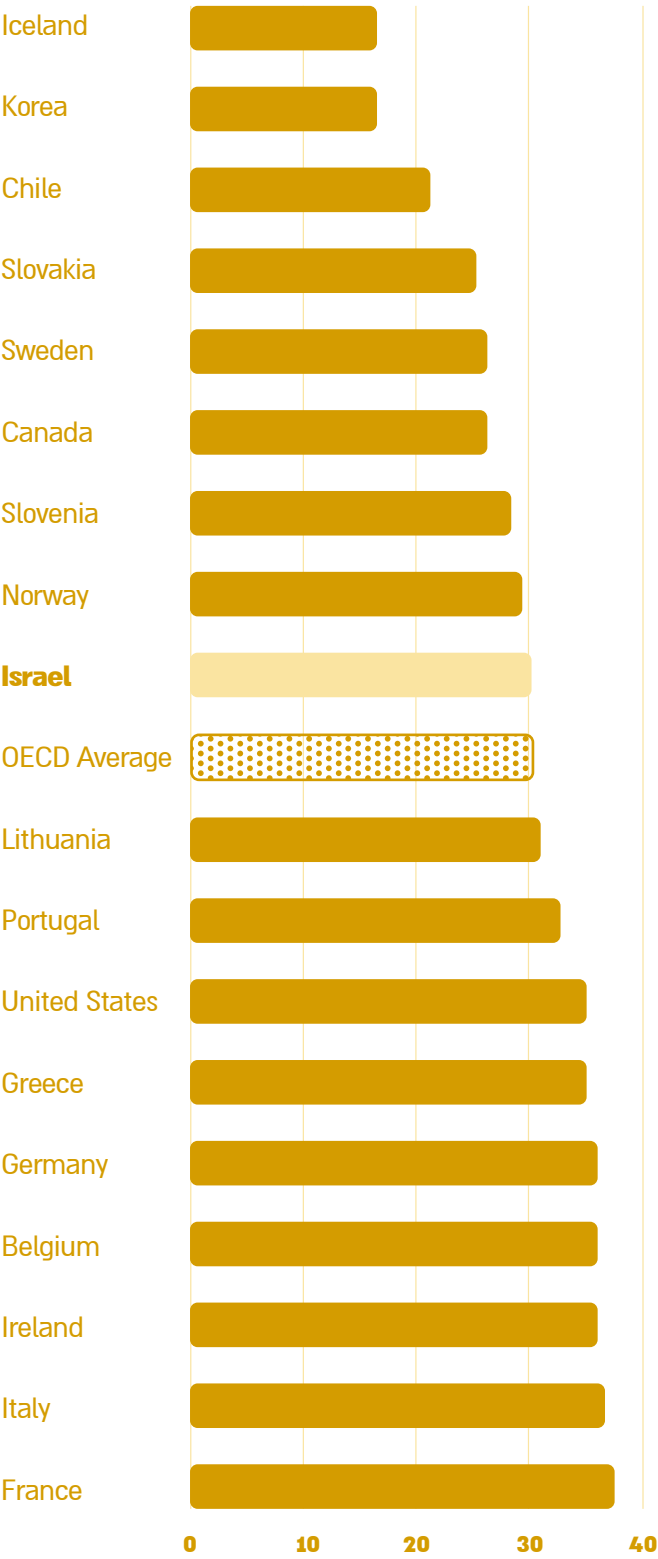
## Global Income Inequality GINI Index



Source: BDO analysis based on National Insurance Institute 2022 data and OECD Statistics.

among households not officially defined as below the poverty line, and therefore presents higher rates. In addition, this index is less suitable for multi-year comparisons due to methodological changes that have occurred since 2021.  
2. The Gini Index measures economic inequality based on income

## Global Poverty Incidences



distribution. It ranges from 0–1, with higher values indicating greater income inequality.  
3. Percentage of the population below the poverty line.  
4. Food Security Index: A lower rank on this index reflects lower levels of food insecurity within the population.



Income inequality remains one of the key challenges facing the Israeli economy, with food insecurity being one of its most direct consequences.

According to the 2022 Global Food Security Index published by The Economist, Israel ranks 24th among OECD countries in terms of food security, a drop of 12 places compared to the previous year. In terms of food expenditure as a share of private consumption, Israel ranks sixth among OECD countries.

In our assessment, Israel’s unusually high level of food insecurity stems from two primary factors: the relatively high proportion of household spending on food compared to overall private consumption, and the absence of a comprehensive national policy on food insecurity, marked by a lack of coordinated oversight and dedicated budgets<sup>5</sup>.

In Israel, food accounts for approximately 18% of private household consumption – one of the highest rates in the OECD. For example, a household spending around NIS 20,000 (USD \$5,400) per month on various goods would allocate about NIS 3,600 (USD \$970) to food<sup>6</sup>. Among food-insecure populations, this share is even higher. For households in the lowest income quintile, food expenses exceed 50% of net income, compared to just 9% in the highest quintile.

Given this context, food rescue and redistribution policies targeting vulnerable populations serve as an effective welfare strategy in Israel. Food rescue efforts that focus on fruit and vegetables as well as other healthy staples such as olive oil, tahini, and legumes, can help ensure access to nutritious food for food-insecure populations, supporting physical, mental, and cognitive functioning. The National Food Security Framework, published in 2025 by the Ministry of Welfare and the National Council for Food Security, highlights the link between poverty and food insecurity and recommends a range of measures to strengthen social resilience through improved food access<sup>7</sup>.

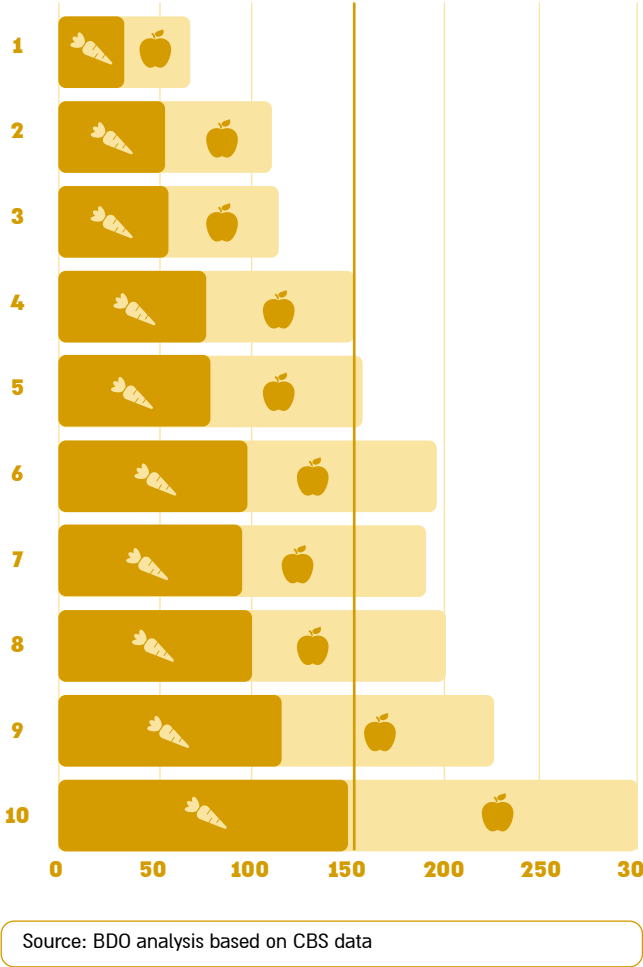
To assess the effectiveness of food rescue as a policy tool for improving food security in Israel, this Report draws on the methodology developed by Chernichovsky and Regev<sup>8</sup>. This approach defines normative food expenditure as an

expenditure that remains constant even when a household’s income increases, thus enabling the impact of food rescue to be measured precisely.

In a comparison of per capita food spending<sup>9</sup> among lower-income groups to the normative benchmark of approximately NIS 990 (USD \$267) per month. The findings show that in the two lowest percentiles (based on standardized per capita consumption), food expenditure reaches only about half of the normative level.

The analysis indicates that the normative monthly expenditure on fruit and vegetables in Israel stands at NIS 152 (USD \$41) per capita. This benchmark exceeds the actual spending levels of individuals in the bottom four income deciles, based on standardized per capita consumption.

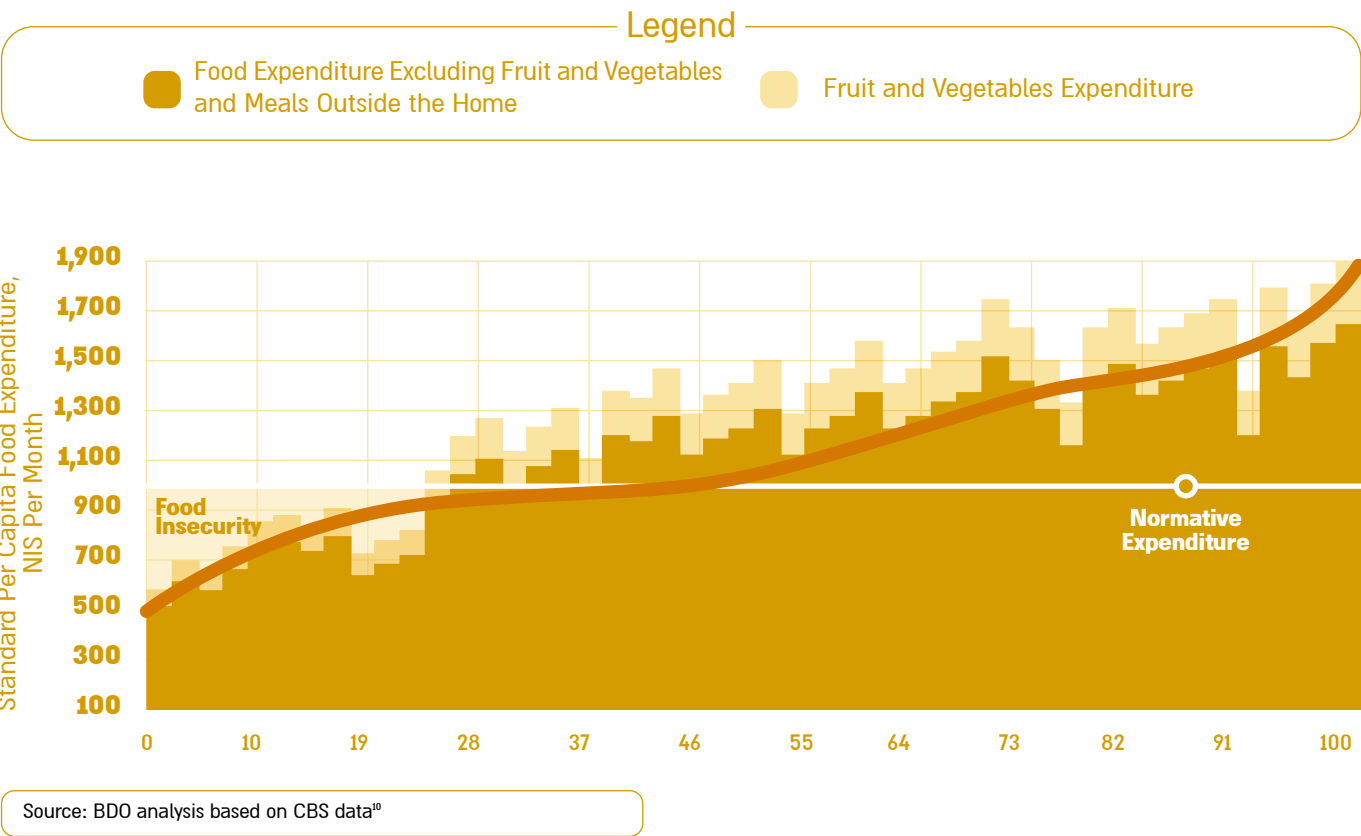
Monthly Per Capita Expenditure on Fruit and Vegetables (NIS), by Income Decile



5. Food Security in Israel: Mapping Gaps and Implementation Responsibilities, 2023  
6. Private Consumption Expenditure on Food, Beverages, and Tobacco, Including Meals Outside the Home, CBS, 2021

7. National Food Security Framework, 2025  
8. Food Expenditure Patterns in Israel, Taub Center, 2014  
9. Excluding meals outside the home, alcoholic beverages, and soft drinks.

Per Capita Food Expenditure in Israel Relative to the Normative Expenditure for Food Security, by Income Decile



10. Household Expenditure Survey, CBS, 2021



# NUTRITION, FOOD SECURITY AND HEALTH

**The cost of a healthy diet is up to five times higher than the basic food basket<sup>11</sup> and many cannot afford it**

The Israeli Ministry of Health's national dietary guidelines<sup>12</sup> recommend a diet that follows the principles of the Mediterranean diet. This approach prioritizes a wide variety of mostly unprocessed plant-based foods, including vegetables, fruit, legumes, whole grains, olive oil, nuts, and seeds, alongside moderate consumption of animal-based foods such as eggs, poultry, fish, and dairy products. The guidelines also strongly advise limiting ultra-processed foods, which often contain extracted ingredients or additives, due to their strong link to obesity and chronic disease<sup>13</sup>. These guidelines are outlined in the Food Rainbow – a national framework that highlights the broader health, environmental, social, and economic benefits of a healthy, balanced diet.

However, historically, public policy efforts to address food insecurity have focused primarily on ensuring adequate caloric intake, with little attention to diet quality. This calorie-centered approach often overlooks the nutritional composition, diversity, and health value of the food consumed. It is essential to recognize that food insecurity spans a spectrum of severity. Accurately identifying these levels is critical for developing effective policies and tailored interventions.

At the global level, public policy aimed at combating food insecurity has been successful in reducing the prevalence of undernutrition worldwide.

However, according to the WHO and the FAO, despite its success in lowering global undernutrition rates, this policy has not promoted healthy nutrition. In fact in some cases, it has been counterproductive, by shaping food systems in a way that has made the cost of a healthy food basket up to five times higher than that of a basic food basket<sup>14</sup>. The latter, which consists of non-perishable or year-round available foods with a high calorie-to-cost ratio, provides the necessary daily caloric intake but lacks the variety and quantity of essential nutrients needed for proper nutrition.

In other words, global policy has focused on ensuring adequate daily caloric intake rather than providing a diverse and nutritious diet. Fruit and vegetables are a cornerstone of a healthy diet, as they provide essential nutrients such as vitamins, fiber, and antioxidants. When it comes to nutrition, variety matters just as much as quantity: a diverse intake of fruit and vegetables has been shown to lower blood pressure, reduce the risk of heart disease and stroke, help prevent certain cancers, improve digestive and eye health, and support healthy blood sugar levels<sup>15</sup>.

A healthy diet is a key factor in preventing non-communicable diseases (NCDs) such as diabetes, hypertension, heart disease, kidney disease, and depression. Data from the Israeli National Program for Quality Indicators in Community Healthcare indicate that the prevalence of diabetes, obesity, impaired GFR, and other health conditions increases as socioeconomic status declines<sup>16</sup>.

This connection between diet, chronic illness, and inequality mirrors global trends. NCDs are the leading cause of death worldwide, responsible for 75% of all fatalities – around 41 million deaths annually, including 18 million among people under the age of 70<sup>17</sup>. Of these premature deaths, an estimated 82% occur in low- and middle-income countries<sup>18</sup>.

Globally, an estimated 35.4% of the population – about 2.83 billion people – were unable to afford a healthy diet in 2022<sup>19</sup>. This marks a slight improvement from 2021, when 36.4% (2.88 billion) faced the same circumstance, representing an annual decrease of approximately 50.1 million people. In Israel in particular, a national study found that two-thirds of families



Food insecurity also contributes to a progressive decline in mental health, leading to psychological distress, depression, and anxiety.

with children could not afford the cost of a healthy diet<sup>20</sup>, highlighting the extent to which economic barriers shape dietary patterns even in high-income countries.

As a result, food-insecure households often rely on low-cost, nutrient-poor foods that are high in calories but low in essential nutrients. This dietary compromise significantly increases the risk of a wide range of health problems, including fatigue, cardiovascular disease, hypertension, osteoporosis, anemia, birth defects, preterm birth, and obesity<sup>21</sup>.

Food insecurity also contributes to a progressive decline in mental health, leading to psychological distress, depression, and anxiety. It is associated with inadequate medical care for children, reduced overall well-being, and cognitive impairments that affect learning, memory, and reasoning. Poor nutrition during critical developmental periods, both in utero and in early childhood, can cause developmental

delays beginning in infancy and continuing into preschool years. These early challenges increase the risk of poor academic performance, lack of concentration in school, and early school dropout.

These cognitive and developmental effects often manifest in broader emotional and behavioral difficulties<sup>22</sup>. Children growing up in food-insecure households are more likely to experience lower psychosocial functioning and exhibit behavioral issues such as aggression, hyperactivity, or apathy, compared to children from food-secure environments.

Beyond the individual and family level, the broader public health impact of food insecurity is evident in its contribution to the global burden of NCDs, which are recognized as one of the greatest challenges to sustainable development. As part of the United Nations Sustainable Development Goals (SDGs), world leaders have pledged to develop national responses aimed at reducing premature mortality from NCDs by one-third by 2030, through both prevention and treatment (SDG Target 3.4). The WHO plays a central role in leading and coordinating international efforts to achieve this goal<sup>23</sup>.

From a broader perspective, the high cost of food relative to disposable income poses a significant barrier to maintaining a healthy diet, in both high-income and low-income countries. In light of this, rescuing and redistributing nutritious food to food-insecure populations can play a vital role in ensuring proper nutrition. By improving dietary quality among those most at risk, this approach not only promotes better health outcomes but also contributes to reducing healthcare expenditures at the national level.



11. FAO  
12. Dietary Guidelines Document  
13. Israeli Ministry of Health website  
14. Food Security and Nutrition in the World 2022, FAO  
15. Harvard T.H. Chan School of Public Health

16. The National Program for Quality Indicators in Community Healthcare  
17. Noncommunicable Diseases Fact Sheet. (2022) World Health Organization, Noncommunicable diseases 2024  
18. Noncommunicable Diseases 2024  
19. The State of Food Security and Nutrition in the World

20. <https://doi.org/10.1186/s13584-025-00675-7>  
21. Desrochers (2015); Tzava (2008); Nirai et al. (2003); Dahl & Olson (1999)

22. Barajas 2007; Carter, Krus, Blakely, & Collings, 2011; Drennen, et al., 2019; Loopstra, et al., 2015; Muldoon, Duff, Fielden, & Anema, 2013; Pettoello-Mantovani et al., 2018; Jacob et al., 2008  
23. Noncommunicable Diseases 2024



# THE HEALTH COSTS OF FOOD INSECURITY

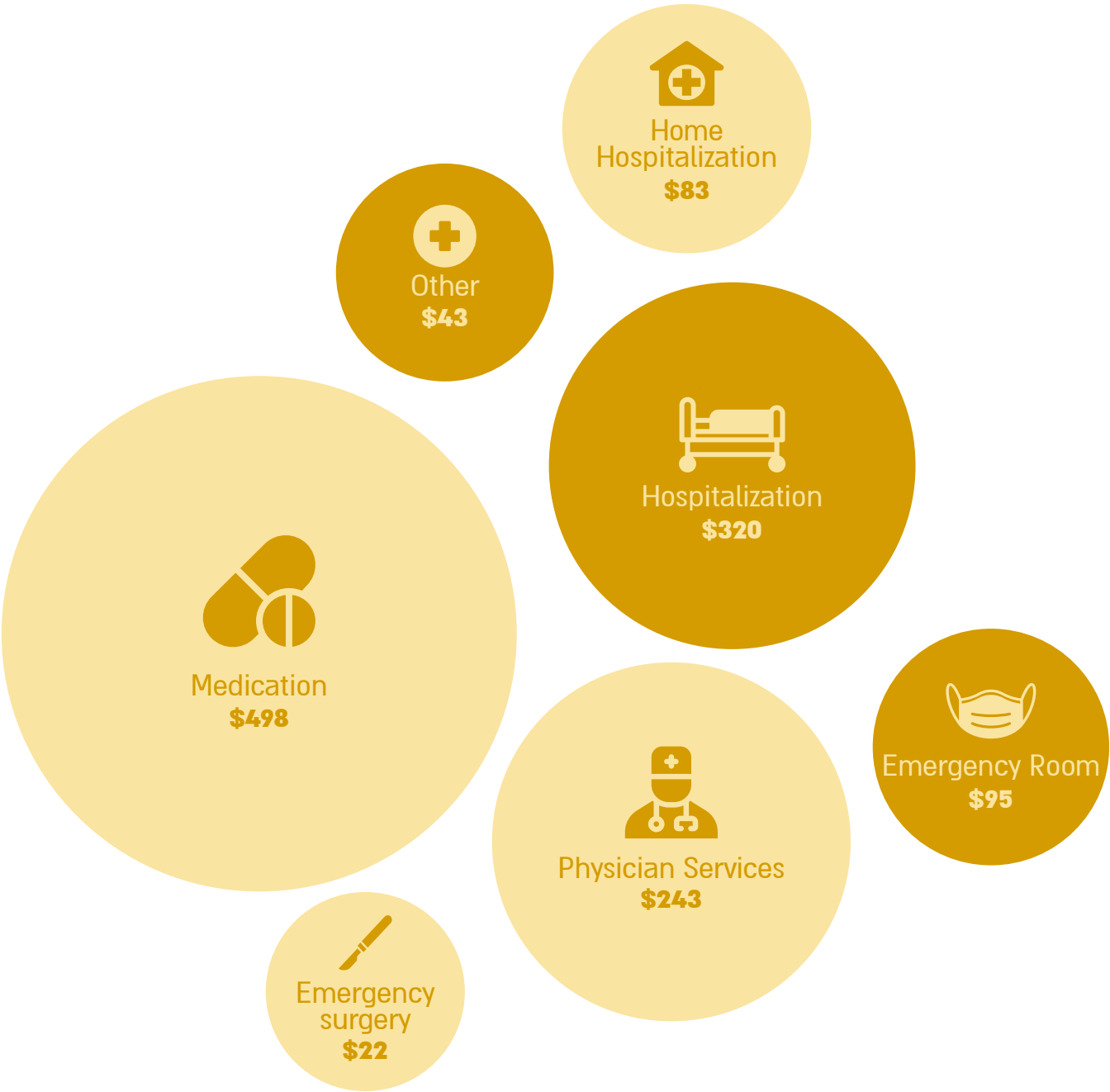
While consuming a healthy food basket, particularly one rich in fruit and vegetables, can be up to five times more expensive than a basic food basket, the long-term costs of an unhealthy diet may be even greater.

A growing body of research and forecasts from around the world highlights the significant health and economic consequences of poor nutrition, affecting both public healthcare systems and individuals:

- A study conducted in the United Kingdom<sup>24</sup> found that approximately 46% of NHS (National Health Service) expenditures are linked to poor diet, physical inactivity, smoking, alcohol consumption, and obesity-related issues. Of the NHS's total annual spending – around £43b – an estimated £6b is specifically attributed to diet-related diseases, including metabolic and endocrine disorders, cancer, and cardiovascular conditions. This represents the highest cost among all risk factors examined in the study.
- A 15-year longitudinal study conducted in Australia found that women who regularly consumed fruit and vegetables incurred lower healthcare costs compared to those who did not. The study also estimated that subsidizing fruit and vegetables, combined with increasing taxes on unhealthy foods, could generate annual healthcare savings of approximately \$3.4b, equivalent to about 2% of Australia's total health expenditure.
- An American study reviewing research published between 2005 and 2015 compared the incidence of various health conditions among food-secure and food-insecure populations. The findings revealed that food insecurity was linked to approximately 4% of arthritis cases, 6% of diabetes cases, 15% of dental health problems, 13% of reported vitamin deficiencies, 7% of obesity cases, 11% of mental health disorders, 30% of depression cases among adults, and 34% of prescription medication use among children.

- According to the CDC's MMWR report on arthritis in children and adolescents in the U.S. (based on NSCH data from 2017–2021), the prevalence of arthritis was higher among children living in food-insecure households compared to those from food-secure homes<sup>25</sup>.
- A 2023 review published in the International Journal of Pediatric Dentistry found that children and adolescents experiencing food insecurity were twice as likely to develop tooth decay<sup>26</sup>. Similarly, a 2023 study published in Nutrients identified a significant association between food insecurity and anemia (AOR = 1.43)<sup>27</sup>.
- A nationally representative cross-sectional study in the U.S. (Scientific Reports, 2024; NHANES) found a positive association between food insecurity and obesity. The severity of food insecurity was directly linked to higher rates of both general and abdominal obesity<sup>28</sup>, as measured by BRI and ABSI indices – an effect that was particularly pronounced among women.
- A recent U.S. study (Journal of Affective Disorders, 2024) found that food insecurity among adults was independently linked to symptoms of depression (AOR ≈ 3.04) and anxiety (AOR ≈ 2.67)<sup>29</sup>. The association was especially strong in households with children and among women.
- A comprehensive Canadian study on children published in 2024 in the Canadian Journal of Public Health found that children from food-insecure households had higher healthcare costs and used health services and prescription medications more frequently than those from food-secure households<sup>30</sup>.

Additional Annual Per Capita Healthcare Costs Attributed to Food Insecurity in Canada (Ontario), \$ per Year



Source: Tarasuk, V., Cheng, J., De Oliveira, C., Dachner, N., Gundersen, C., Kurdyak, P. (2015). Association between household food insecurity and annual health care costs. Cmaj, 187(14), E429–E436

24. The Economic Burden of Ill Health due to Diet, Physical Inactivity, Smoking, Alcohol and Obesity in the UK  
25. Arthritis Among Children and Adolescents Aged <18 Years — United States, 2017–2021  
26. SabbaghS2023Food\_AAM.pdf

27. Food Insecurity and Micronutrient Deficiency in Adults: A Systematic Review and Meta-Analysis  
28. The Association between Food Insecurity and Obesity, A Body Shape Index and Body Roundness Index among US Adults | Scientific Reports

29. Food Insecurity and Mental Health among US adults during the COVID-19 Pandemic: Results from National Health Interview Survey, 2020–2021 – PMC  
30. The Association between Household Food Insecurity and Healthcare Costs among Canadian Children – PubMed

31. Association between household food insecurity and annual health care costs  
32. 2012 prices adjusted to 2023 terms  
Tarasuk, V., Cheng, J., De Oliveira, C., Dachner, N., Gundersen, C., Kurdyak, P. (2015). Association between household food insecurity and annual health care costs. Cmaj, 187(14), E429–E436



• A 2015 Canadian study published in the Canadian Medical Association Journal examined the relationship between food insecurity and healthcare costs. The findings showed that the more severe the level of food insecurity, the higher the associated healthcare expenses. The study estimated that the average additional annual healthcare cost per adult living with food insecurity was \$1,266, with hospitalizations, prescription drug use, and physician services accounting for most of this increased expenditure.

• Consistent with findings from Canada, a 2019 study from the United States found that adults (ages 18 and older) living in food-insecure households incurred approximately \$2,100 more<sup>33</sup> in annual healthcare costs per person compared to those in food-secure households. Using data from the National Health Interview Survey (NHIS) and the Medical Expenditure Panel Survey (MEPS), the researchers analyzed the link between levels of household food insecurity and healthcare spending, estimating the additional costs associated with food insecurity across different states and counties throughout the United States<sup>34</sup>.

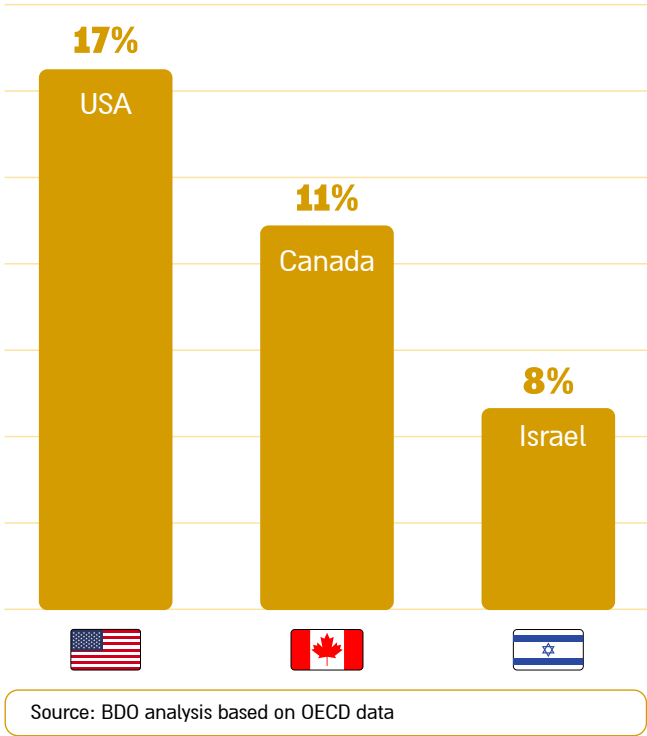
To estimate the additional healthcare costs associated with food insecurity in Israel, data from Canada and the United States were analyzed and compared to Israel's healthcare system. The findings indicate that Canada is the most relevant comparison in terms of healthcare expenditures, as both countries have similar levels of public healthcare spending and comparable healthcare expenditures as a percentage of GDP. In contrast, the United States has significantly lower public healthcare spending than both Israel and Canada, while its total healthcare expenditure as a percentage of GDP is substantially higher. As a result, the United States is not a suitable reference point for assessing Israel's healthcare costs.

Healthcare expenditure as a percentage of GDP, per adjusted capita, is approximately 8% in Israel, 11% in Canada, and 17% in the United States.

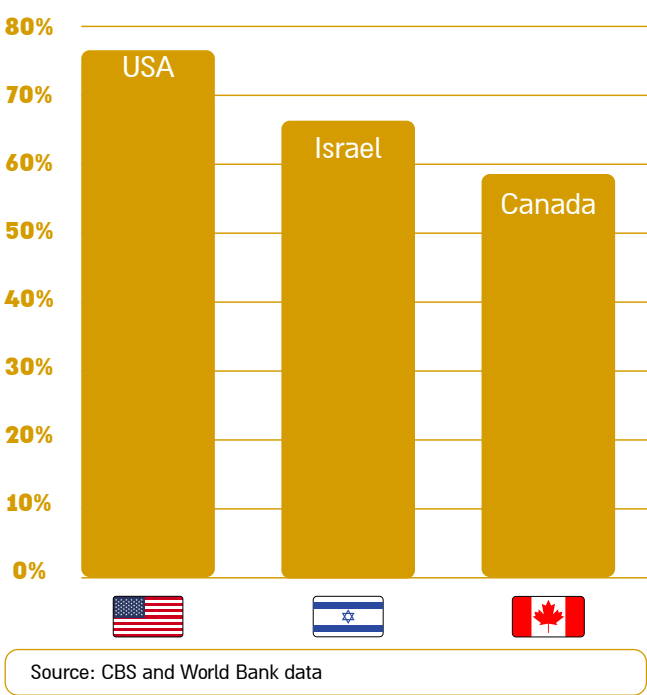
Additionally, government spending as a share of total healthcare expenditure is similar in Israel and Canada, standing at approximately 70%, whereas in the United States it is only around 55%<sup>35</sup>.

33. 2019 prices adjusted for 2024 terms.  
34. BDO analysis of Berkowitz, S., Basu, S., Gundersen, C., Seligman, H.. (2019). State-level and county-level estimates of health care costs associated with food insecurity. American Center for Disease Control. 16, E90

Healthcare Expenditure as a Percentage of National GDP



Public Healthcare Expenditure as a Percentage of Total Healthcare Expenditure

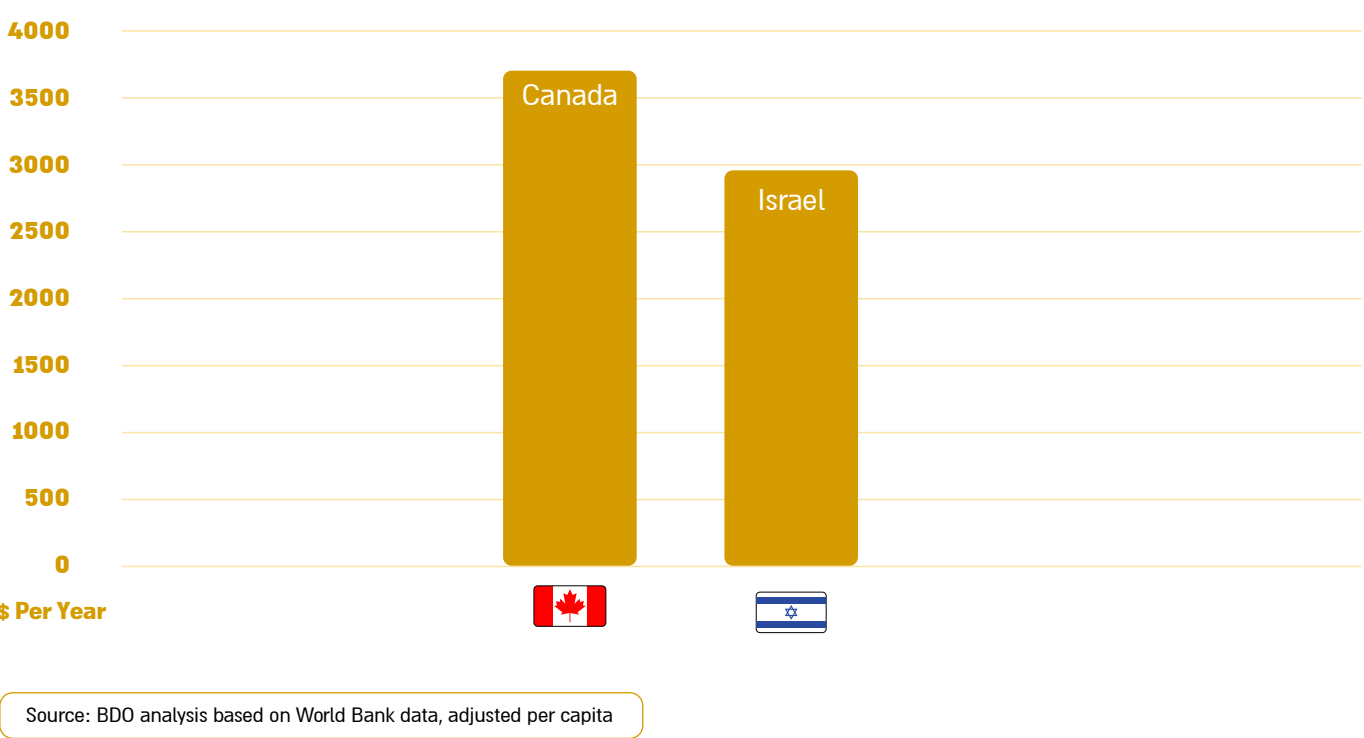


35. Based on World Bank data  
36. According to World Bank data, adjusted per capita using capitiation coefficients from the Israeli Ministry of Health

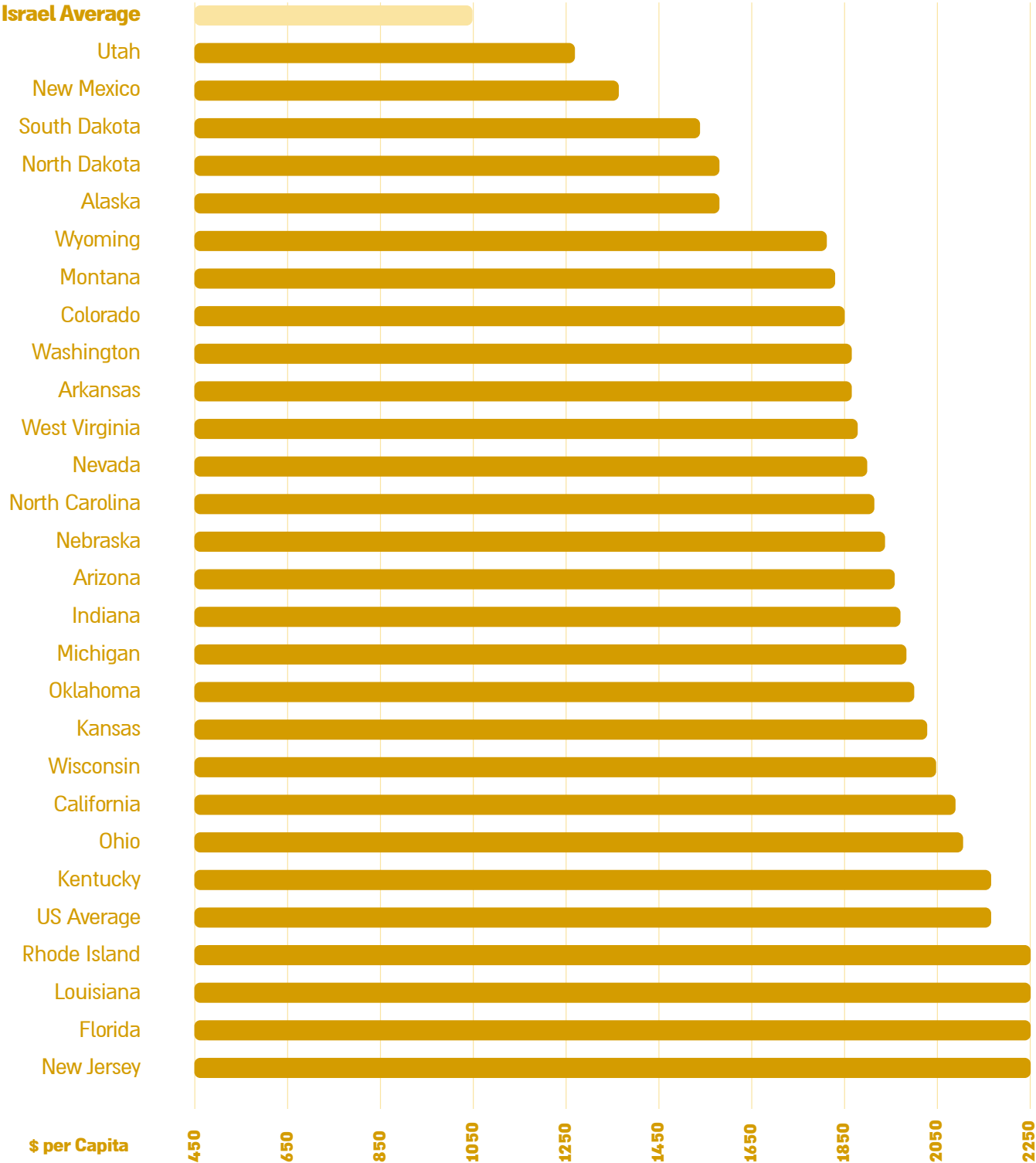
As Canada is the most relevant comparison for Israel in terms of healthcare expenditures, annual per capita healthcare costs in both countries were analyzed. World Bank data reveals that per capita healthcare spending in Canada is about 20% higher than in Israel<sup>36</sup>.

To reflect this difference, the additional annual per capita healthcare cost associated with food insecurity in Canada - estimated at \$1,303 - was adjusted downward by approximately 20%, based on differences in standardized per capita health expenditure. Following this adjustment, the corresponding figure for Israel is estimated at approximately \$1,040 per person per year.

Per Capita Healthcare Expenditure in Canada and Israel  
Dollars per Year



Additional Annual Per Capita Healthcare Costs  
Due to Food Insecurity in Canada, the United States, and Israel (Dollars per Year)



For the United States – 2019 prices adjusted to 2023 terms; for Canada – 2012 prices adjusted to 2023 terms

Source: BDO analysis based on State-Level and County-Level Estimates of Health Care Costs Associated with Food Insecurity and Association Between Household Food Insecurity and Annual Health Care Costs

This Report examines the additional health-related burden food insecurity places on the Israeli economy. The analysis in this section focuses specifically on the direct health impacts of food insecurity in Israel in 2024 and does not include indirect economic costs associated with living in food-insecure conditions.

In 2016, Bread for the World, an American anti-hunger organization, assessed the indirect impacts of food insecurity, including lost workdays due to illness among food-insecure individuals, lost workdays for family members who need to

care for them, special education costs for food-insecure children in public elementary and high schools, and dropout-related costs. These indirect costs were estimated at \$24b, representing a 16% increase over the direct costs associated with food insecurity estimated in the study<sup>37</sup>.

As such, the estimated direct health-related costs presented in this section should be viewed as a conservative baseline, serving as a starting point for future evaluations of the total economic impact of food insecurity in Israel.

ESTIMATED HEALTHCARE COSTS  
OF FOOD INSECURITY IN ISRAEL

**NIS 5.8 Billion (USD \$1.5 Billion):**  
The Additional Healthcare Burden of  
Food Insecurity in Israel

Data from the FAO indicates that food insecurity in Israel is among the most severe in the OECD. While Israel's poverty rate is comparable to that of the United States, its food insecurity rate is 1.7 times higher. This means that the burden on Israel's healthcare system as a result of food insecurity is significantly greater.

In Israel, where per capita healthcare spending is approximately 20% lower than in Canada, the additional annual healthcare cost of food insecurity is estimated at \$1,040 per person, equivalent to roughly NIS 3,855 (USD \$1,042) per year.

Based on the analysis presented in this Report, an estimated 1.5 million people<sup>38</sup> in Israel are living with food insecurity. As a result, the total additional healthcare burden to the Israeli economy is estimated at NIS 5.8b (USD \$1.57b) per year – equivalent to about 4% of total national health expenditure<sup>39</sup>.

**1.5 Million Standardized Persons**  
Number of people experiencing food insecurity in Israel

**3.85 Thousand NIS**  
Additional annual healthcare cost per person

**5.8 Billion NIS**  
Additional annual national healthcare cost

Rescuing nutritious food and supplying it to food-insecure populations who rarely purchase or consume healthy food can improve their overall nutrition and health while reducing national healthcare expenses.

37. "Hunger Report", Bread For the World, 2016, Appendix 2  
38. Standardized person  
39. Based on CBS data, National Health Expenditure, 2023



# FOOD RESCUE: POTENTIAL SAVINGS FOR THE NATIONAL ECONOMY



**NIS 5.8 billion**  
**(USD \$1.57 billion)**






The estimated national savings potential from food rescue.

**20% of lost and wasted food in Israel, if rescued, would be enough to close the national food insecurity gap.**

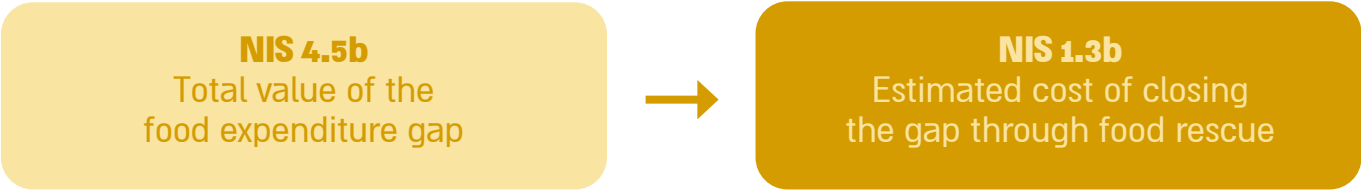
The amount of food needed to close the gap between actual consumption among food-insecure populations and the normative consumption level (based on average consumption in the 2nd to 5th income deciles) is estimated at approximately 530,000 tons in 2024, and valued at around NIS 4.5b (USD \$1.2b). Of this, about NIS 3.3b (USD \$890m) would

be required to close the gap for households experiencing severe food insecurity (about 8.2% of Israeli households), while the additional NIS 1.2b (USD \$324m) would be needed to address the gap for those experiencing moderate food insecurity.

## Food Expenditure Gap vs. Normative Level for Food-Insecure Populations, (Million NIS)

	Severely Food Insecure Population (Million NIS)	Moderately Food Insecure Population (Million NIS)	Total Food Expenditure Gap (Million NIS)
 <b>Bread &amp; Grains</b>	631	329	960
 <b>Meat, Poultry &amp; Fish</b>	389	159	548
 <b>Milk &amp; Dairy Products</b>	963	250	1,213
 <b>Other Food</b>	299	136	434
 <b>Fruit &amp; Vegetables</b>	987	363	1,350

**Total:**



Closing the food insecurity gap without relying on food rescue would require approximately NIS 4.3b (USD \$1.15b) annually in direct support, highlighting the clear advantage of food rescue over alternatives such as cash transfers, donations, subsidies, or other aid to vulnerable populations. In contrast, food rescue can achieve the same goal at a significantly lower cost—just NIS 1.3b (USD \$350m) per year. In other words, rescuing nutritious food, particularly fruit and vegetables, can reduce food insecurity at roughly 70% less cost. Beyond the economic savings, food rescue also delivers substantial health, social, and environmental benefits.

## Summary of the National Economic Benefit of Food Rescue (Million NIS per Year)

Food Rescue Rate (of Total Food Loss)	2% (Current Situation)	5%	10%	20%
Amount of food rescued (thousand tons)	46	120	250	500
Share of food insecurity gap covered	9%	25%	50%	100%
Market value of rescued food	280	1,090	2,280	4,500
Cost of food rescue	70	300	630	1,300
Direct economic savings (excl. externalities)	210	790	1,650	3,250
Environmental & social impact (FAO data)	230	650	1,300	2,600
Health benefits	534	1,451	2,902	5,803
Total savings for the national economy	974	2,891	5,852	11,653

Source: BDO estimates

Food insecurity is evident not only in the overall amount spent on food, but also in how that money is spent. Compared to food-secure households, food-insecure households allocate significantly less of their budget to nutrient-rich foods such as fruit, vegetables, meat, and fish.

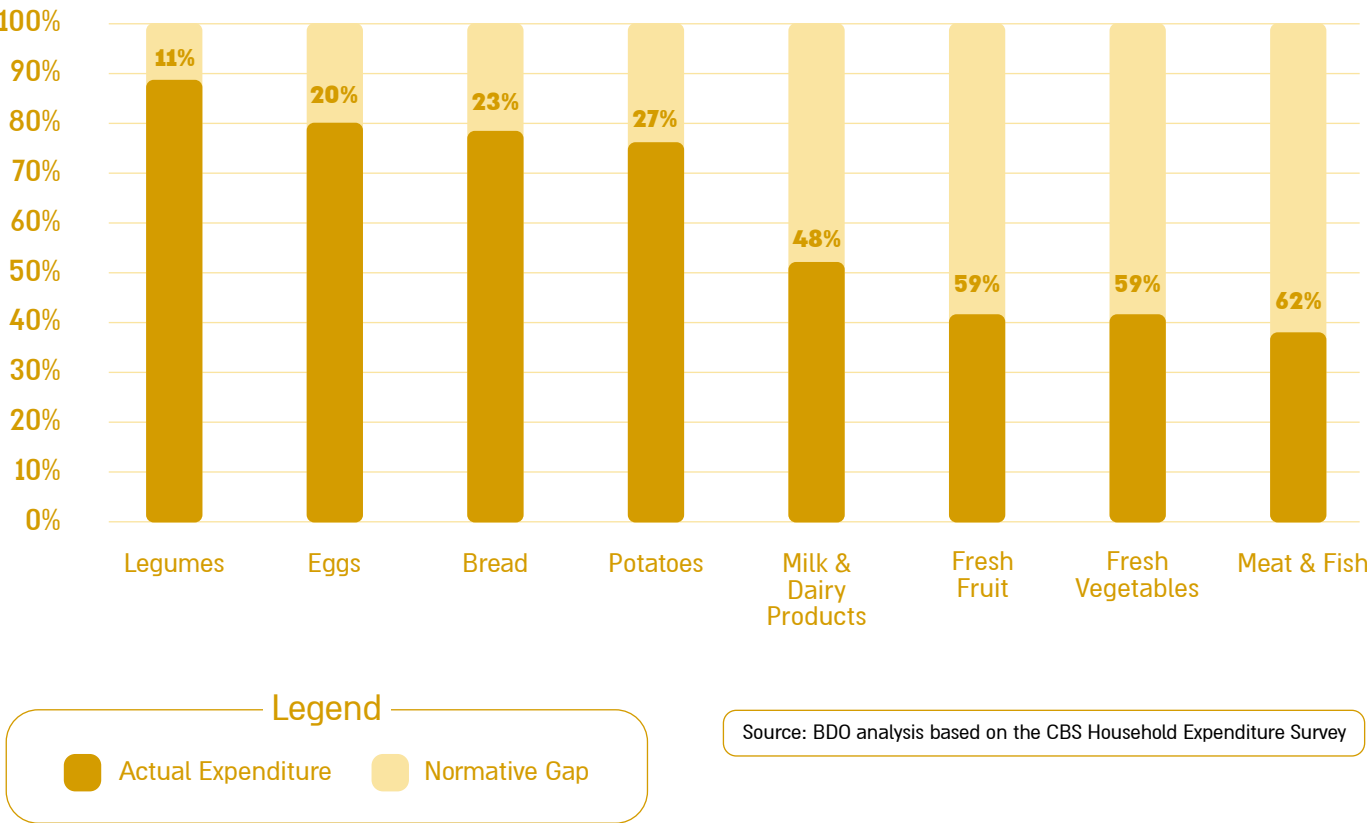
For example, in food categories with high nutritional value, such as meat, poultry, fish, dairy, and fresh fruit and vegetables, spending among food-insecure households is 48% to 62% lower than normative consumption levels. In contrast, for staple items such as bread, eggs, and legumes, the gap is significantly smaller, ranging from 11% to 27%.

According to economic theory, in-kind support, i.e. providing goods rather than cash, is generally considered less efficient, as it restricts recipients’ freedom to allocate resources according to their full range of needs. This concept, often summarized as “subsidize the consumer, not the product,” typically favors direct financial assistance over goods-based aid. However, when it comes to food rescue, there are unique circumstances that make in-kind support clearly more advantageous. As food rescue involves diverting surplus food that would otherwise be discarded, each 1 USD invested

yields a direct economic return of 3.6 USD. When factoring in environmental benefits such as reduced greenhouse gas emissions, lower air pollution, and decreased waste management costs, the return rises to 4.2 USD per 1 dollar invested, and when the health benefits of alleviating food insecurity are included, the total return to the national economy reaches 11 USD for every 1 dollar invested.

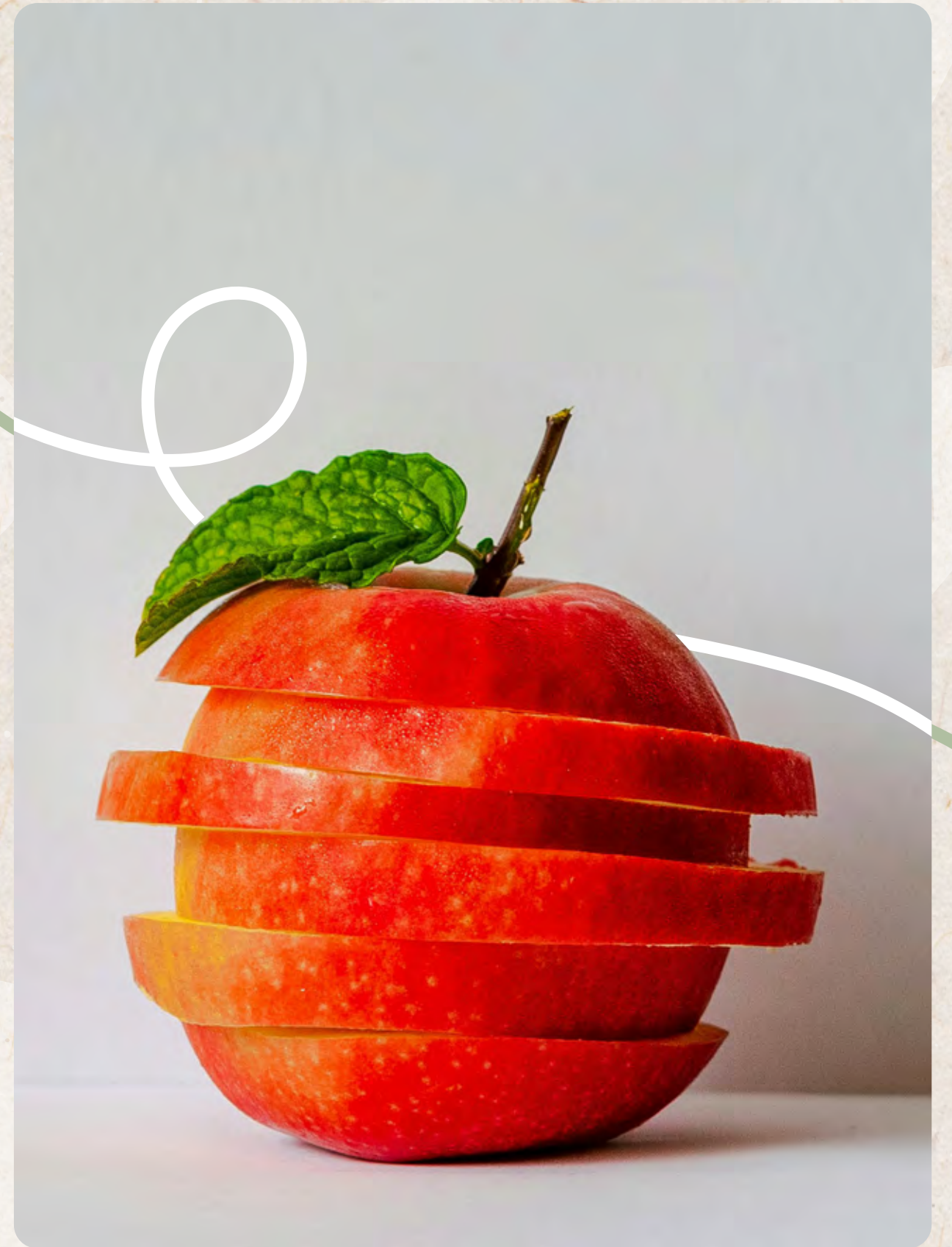
In September 2015, the United Nations and the U.S. government adopted a national sustainable development goal to reduce food loss by 50% within 15 years. The analysis presented in this Report shows that rescuing only 20% of lost and wasted food in Israel would be enough to fully close the food consumption gap for approximately 485,000 food-insecure households in Israel, bringing their food intake up to normative levels. At the national level, this would translate into annual savings of roughly NIS 4.5b (USD \$1.22b) representing the difference between the market value of the rescued food and the cost of rescuing it. Importantly, this figure does not account for the broader economic benefits of reducing poverty and inequality, nor does it include the positive environmental and health impacts food rescue would generate.

**Food Expenditure Composition Among Severely Food-Insecure Households**  
(Nutritional Composition of a Normative Diet = 100%)





## **(6) ENVIRONMENTAL IMPACTS AND COSTS OF FOOD LOSS AND WASTE IN ISRAEL**







## NIS 4.2 BILLION (USD \$1.14B)

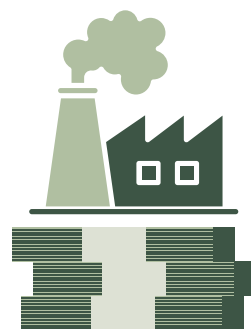
The total annual environmental cost of food loss and waste in Israel, comprising:

### Loss of natural resources<sup>1</sup>



**NIS 1.6 Billion**  
(USD \$432m)

### Greenhouse gas and air pollutant emissions



**NIS 1.6 Billion**  
(USD \$432m)

### Waste management costs



**NIS 1 Billion**  
(USD \$270m)

Food production relies on a broad range of resources – land, water, fertilizers, chemicals, and energy – and accounts for nearly one-fifth of global greenhouse gas emissions<sup>2</sup>. Many of these resources are non-renewable<sup>3</sup>, and their intensive use poses serious risks to water sources, soil health, air quality, and biodiversity worldwide.

In 2024, the environmental cost of lost food in Israel is estimated at approximately NIS 4.2b (USD \$1.14b). This includes about NIS 1.6b (USD \$432m) resulting from the unnecessary depletion of land and water resources, NIS 1.6b (USD \$432m) from greenhouse gas and air pollutant emissions, and NIS 1b (USD \$270m) in direct waste treatment costs. Across the various stages of the food supply chain (excluding the agricultural sector), food loss and waste generates an estimated 2m tons of municipal waste (including packaging), representing roughly 35% of Israel's total municipal waste. It is important to note that this is a conservative estimate, which does not account for environmental costs incurred outside Israel's borders, or for additional environmental impacts, such as loss of biodiversity.

Although food production has well-documented environmental drawbacks, agriculture is generally not regarded as a polluting sector and is rarely subject to environmental taxes or levies. This is largely because the positive externalities of food consumption are considered to outweigh the negative externalities of its production. In many developed countries, food production and consumption are even supported through direct or indirect subsidies.

However, food loss and waste, defined as food that is produced but not consumed, carry all the environmental costs of production, handling, and disposal, without delivering any of the benefits associated with consumption. As such, food loss and waste represent a pure environmental burden.

Global recognition of the environmental consequences of food loss and waste has grown significantly in recent years. The FAO and the United Nations Environment Programme (UNEP) are jointly promoting a standardized international metric for measuring the scale of food loss and waste, under the Sustainable Development Goals (SDG) framework. In

1. The cost of lost natural resources is reflected in the market value of lost food, estimated at approximately NIS 24.3b (USD \$6.57b).

2. <http://www.fao.org/economic/ess/environment/data/emission-shares/en/>

3. Cut Waste, GROW PROFIT. How to reduce and manage food waste, leading to increased profitability and environmental sustainability, Background Paper 2012



2019, UNEP published the Food Waste Index Report, which for the first time underscored the environmental dimensions of food loss and waste and highlighted the importance of using life cycle assessment methodologies to quantify environmental impacts throughout the value chain. This momentum continued in 2023, when the FAO released its State of Food and Agriculture (SOFA) Report, focusing on the environmental impacts of food loss during the agricultural production and processing stages. The report estimates that losses at these stages alone result in approximately 2.5 gigatons of CO<sub>2</sub>-equivalent emissions per year, illustrating the significant role of food loss in driving global warming. The FAO emphasizes that reducing food loss and waste is one of the most effective strategies for cutting greenhouse gas emissions, preserving land and water resources, and easing pressure on ecosystems.

Efforts to reduce food loss can take many forms, ranging from measures that prevent surplus at the source to policies that promote food recovery and redistribution and strategies that prioritize composting and anaerobic digestion over landfilling. In this context, governments worldwide are employing a variety of policy tools aimed at minimizing food loss and waste.

This section examines the environmental costs of food loss and waste in Israel, with a focus on impacts in 2024. The analysis addresses greenhouse gas and air pollutant


emissions across the food production, consumption, and disposal chain, the loss of natural resources, particularly land and water, and the environmental burdens associated with waste treatment. The external costs of emissions were calculated using the methodology developed by the FAO<sup>4</sup>. However, other environmental externalities, such as the impact on water and soil quality and biodiversity loss, were not included in this stage of the analysis. Therefore, the environmental cost assessment presented here is a partial estimate and serves as a basis for a more comprehensive environmental cost evaluation of food loss and waste in Israel in the coming years.

It is important to note that the estimates presented here only pertain to environmental impacts occurring within Israel's geographic borders. They do not account for the natural resources used or emissions generated during the cultivation and production of food outside the country. This is a critical distinction, as Israel relies heavily on food imports, particularly in categories such as grains, sugars, oils, and fish. Currently, an estimated 80% of calories in the Israeli diet come from imported sources, whether through direct imports of food products or through animal-based products fed on imported feed<sup>5</sup>. Certain food categories, such as grains and meat, have particularly high import ratios relative to national consumption. Accordingly, the full environmental impact of food discarded in Israel is greater than what is captured here.

4. FAO, Food Waste Footprint Full Cost Accounting, 2014

5. Policy Paper | The Climate Crisis and Our Plate, Dr. Liron Amdor





6% of Israel's greenhouse gas emissions are attributable to food loss and waste

The environmental impacts of food production, spanning cultivation, processing, marketing, consumption, and disposal, are largely driven by energy use and resource demands, and vary significantly by crop type. These impacts are compounded by the additional economic and environmental costs of managing discarded food and packaging waste.

Beyond the direct environmental costs, food lost and waste in Israel in 2024 also resulted in significant resource losses. These included 1,310m kilowatt-hours of electricity—roughly equivalent to the annual energy used to produce all electronic and electrical devices in Israel, and 80,000 tons of fuel, enough to power around 175,000 cars for a year. In addition, 190m cubic meters of freshwater were lost, enough to fill 57,000 Olympic-sized swimming pools, along with 220m cubic meters of reclaimed wastewater. The loss of approximately 1m dunams of agricultural land, an area equivalent to 20 times the size of Tel Aviv, further highlights the scale of the issue. Other losses included 180,000 tons of packaging waste, more than 60,000 tons of fertilizers, and about 3,000 tons of ammonia emissions from livestock. Together, these factors contributed to around 5m tons of greenhouse gas emissions in 2024, representing roughly 6% of Israel's total emission<sup>6</sup>s. Under Government Decision No. 171, issued on July 25, 2021,

regarding transitioning to a low-carbon economy<sup>7</sup>, Israel is committed to reducing greenhouse gas emissions by 30% by 2030 and 85% by 2050, relative to 2015 levels. Additionally, in October 2021, the Prime Minister announced a national goal of reaching net-zero carbon emissions by 2050<sup>8</sup>.

To support these national targets, the Israeli government set sector-specific goals in the same decision, aimed at reducing greenhouse gas emissions and increasing energy efficiency across the economy. These include reducing emissions from solid waste by at least 47% by 2030, compared to 2015 levels; cutting emissions from municipal waste by at least 92% by 2050, relative to the 2015 baseline of 5.5m tons; and decreasing the volume of landfilled municipal waste by 71% by 2030, compared to 4.5m tons in 2018. Reducing food waste in Israel will play a key role in supporting the national effort to meet greenhouse gas reduction targets and reduce municipal waste landfill rates.

On December 3, 2024, the Knesset's Interior and Environmental Protection Committee approved the Climate Bill for its second and third readings, subject to revision. In its current form, the bill sets a national target of a 27% reduction in greenhouse gas emissions by 2030, and net-zero emissions by 2050. The proposed legislation must now be reapproved by the Ministerial Committee for Legislation, returned to the Interior and Environmental Protection Committee, and then proceed to a vote in the Knesset plenum.

In January 2025, Israel's carbon tax came into effect. The tax is being applied gradually to polluting fuels such as coal, fuel oil, LPG, petroleum coke, and natural gas, with the aim of encouraging a shift toward low-carbon energy sources.


In September 2025, the Ministry of Environmental Protection and the Ministry of Agriculture published a national plan to reduce food loss and waste. The plan outlines national targets under two progress scenarios:

- Moderate scenario: 25% reduction in food loss and waste by 2050
- Advanced scenario: 50% reduction in food loss and waste by 2050.

Reducing food loss and waste in Israel will contribute to the national effort to meet greenhouse gas emission reduction targets and decrease municipal waste sent to landfill.

6. In 2022, greenhouse gas emissions rose to 4.88m tons, compared to 4.76m tons the previous year.  
7. [https://www.gov.il/he/departments/policies/dec171\\_2021](https://www.gov.il/he/departments/policies/dec171_2021)

8. [https://www.gov.il/he/departments/news/carbon\\_emissions291021](https://www.gov.il/he/departments/news/carbon_emissions291021)



57,000 Olympic-sized pools could have been filled with the water lost to food loss and waste in 2024

In a dry country like Israel, water is a scarce and valuable resource. In 2024 alone, food loss and waste resulted in the loss of 190m cubic meters of freshwater, enough to fill 57,000 Olympic-sized swimming pools. That same volume could have raised the Sea of Galilee's water level by over a meter, or provided a year's water supply for approximately 3.6m people<sup>9</sup>. The estimated economic cost of this wasted water is roughly NIS 750m (USD \$203m).

Land is another limited and valuable resource in Israel. The agricultural land used to grow food that was ultimately discarded stands at about 1m dunams, valued at an estimated NIS 0.9b (USD \$243m).

Environmental Costs from Food Loss and Waste in 2024, by Cost Driver, Billion NIS

Cost Driver	Resource Loss	Emissions Cost	Waste Treatment Cost	Natural Resource Cost (Land & Water)
Waste	2m tons municipal waste; 0.9m tons agricultural waste	0.6	1	-
Electricity production (excluding desalination & water treatment)	1,310m kWh	0.3	-	-
Emissions from livestock	3,000 tons ammonia	0.5	-	-
Fuel combustion	80,000 tons	0.2	-	-
Water	190m cubic meters of fresh water; 220m cubic meters of treated water	0.1	-	0.7
Fertilizer use	60,000 tons	0.04	-	-
Land	1m dunams of agricultural land	-	-	0.9
Total	-	1.6	1	1.6

Source: BDO

9. Domestic water consumption for residential use.



Food Waste Makes Up About One-Third of Household Waste in Israel



About 50% of the environmental damage caused by food waste happens at the consumption stage

The environmental impact of food loss and waste stems not only from the overproduction of food and consumption patterns that lead to the depletion of natural resources and pollutant emissions, but also from how discarded food is treated. Waste treatment, especially the landfilling of food waste, generates additional environmental impacts. This is especially relevant in Israel, where food waste constitutes a substantial portion of household waste. A 2025 survey by the Ministry of Environmental Protection found that 38.6% of the mixed waste disposed of in green bins is organic kitchen waste<sup>10</sup>. Consequently, food waste increases the volume of waste requiring treatment and when not separated at the source, also impairs the recycling of other materials in household waste.

Most of Israel’s waste is sent to landfills, which have numerous negative environmental impacts. Landfilling requires vast tracts of land, contributing to the depletion of Israel’s already limited land resources. In addition, transporting waste to distant landfill sites across the country releases a range of air pollutants, further exacerbating the environmental damage.

Municipal waste in Israel amounts to approximately 6m tons annually<sup>11</sup>. Of this total, food waste alone is estimated at 2.6m tons in 2024<sup>12</sup>, of which about 1.8m tons<sup>13</sup> required end-of-life treatment as part of the managed municipal waste stream. On top of that, food waste generates another 180 thousand tons of packaging waste, bringing the combined total to 2m tons of waste - roughly one-third of all waste produced in Israel requiring treatment. Managing such an enormous volume of waste requires around 200,000 compactor truck<sup>14</sup> for collection and disposal, equivalent to about 550 fully loaded garbage trucks every single day for an entire year.

The volume of waste requiring treatment calls for substantial

10. Waste Composition and Volume in Green Bins, 2023  
11. According to estimates of waste in Israel by the Ministry of Environmental Protection.  
12. The total volume of food loss also includes agricultural produce left unharvested in the field.

13. Around 870 thousand tons of food are lost annually at the agricultural stage, produce that typically remains in the fields and therefore does not require waste treatment.  
14. With a 10-ton capacity.  
15. Excluding food loss at the agricultural stage.  
16. Includes both household and institutional consumption.

Environmental Costs of Food Loss and Waste in Israel, 2024  
By Stage of Disposal (Million NIS)

	Agriculture*	Processing	Distribution	Consumption**	Total
Fruit & Vegetables	430	35	465	900	1,830
Grains & Legumes	70	50	125	400	645
Dairy Products	135	55	80	275	545
Meat, Eggs & Fish	155	170	240	590	1,155
Total	790	310	910	2,165	4,175
Share of Total	19%	7%	22%	52%	100%

Source: BDO

\* Including losses from post-harvest handling and packaging.  
\*\* Not including emissions from household water, electricity, and gas use.

resource allocation, including financial investment and regulatory support for sorting and end-treatment solutions. The cost of waste management is composed of several factors, including storage, collection, and disposal costs, expenses for sorting and transfer stations, transportation costs, as well as the treatment itself, depending on the required method, and landfill levies. According to estimates by the Ministry of Environmental Protection (Waste Policy 2030), the annual direct cost of treating food and packaging waste generated from food loss<sup>15</sup> in Israel is approximately NIS 1b (USD \$270m). The external costs associated with greenhouse gas and air-pollutant emissions from waste treatment add another NIS 0.6b (USD \$162m). In total, the direct and external economic cost of waste treatment due to food loss in Israel in 2024 stands at approximately NIS 1.6b (USD \$432m).

The environmental impacts associated with agricultural produce are assessed across the product’s entire life cycle, from production and post-harvest handling to storage, processing, distribution, consumption, and disposal. The later in the process food is lost or discarded, the greater its environmental impact. This is because the environmental footprint of food waste is shaped by three combined factors: the stage in the value chain where the food is discarded, the environmental effects of its end-of-life treatment as waste, and the cumulative impacts of all preceding stages. For example, when food is thrown away at a grocery store, it carries the environmental burden









of every stage that came before: emissions from its cultivation and harvesting, transportation from the field to the packing house and store, and energy used for refrigeration, lighting, and air conditioning to keep it fresh. These are compounded by the emissions generated from transporting the discarded food to landfills and its decomposition after disposal.

Food waste at the consumption stage accounts for about 50% of the total environmental costs of food loss in Israel. When consumers discard food, they are not only wasting the product itself but also all the environmental resources invested in its production, processing, transportation, and distribution up to that point. In 2024, food discarded at the consumption stage<sup>16</sup> amounted to approximately 1.4m tons (including packaging), with an estimated market value of NIS 14b (USD \$3.78b). Beyond the cost of wasted food, additional economic damage arises from waste treatment costs, which consumers indirectly pay through municipal fees, totaling approximately NIS 0.6b (USD \$162m). Additional environmental damage caused by greenhouse gas emissions and air pollution from food waste at this stage is estimated at NIS 0.8b (USD \$216m).

Approximately 60% of total environmental impact originates in the agricultural stage. Agricultural emissions result from fuel and electricity consumption, fertilizer use, sludge and compost application, water desalination, and direct emissions from livestock. This stage also involves extensive use of water



Environmental Cost of Food Loss and Waste by Stage of Disposal, 2024, Million NIS

	 Emissions	 Land Resources	 Water Resources	 Waste Treatment	Total
 Agriculture	360 Billion NIS	230 Billion NIS	180 Billion NIS	0 NIS	770 Billion NIS 820,000 tons
 Industry	115 Billion NIS	80 Billion NIS	65 Billion NIS	45 Billion NIS	305 Billion NIS 85,000 tons
 Distribution	295 Billion NIS	215 Billion NIS	170 Billion NIS	235 Billion NIS	915 Billion NIS 440,000 tons
 Consumption	790 Billion NIS	330 Billion NIS	335 Billion NIS	675 Billion NIS	2,130 Billion NIS 1,250,000 tons
Total	1.6 Billion NIS	0.9 Billion NIS	0.7 Billion NIS	1 Billion NIS	4.2 Billion NIS 2,595,000 tons

Source: BDO

An analysis of the environmental impact of different food categories reveals that animal-based food has the highest environmental impact. Food waste from meat, eggs, and fish discarded at the agricultural stage incurs an environmental cost of NIS 5.90 (USD \$1.59) per kg due to air pollution and greenhouse gas emissions. If discarded at the consumption stage, this cost rises to NIS 8.20 (USD \$2.22) per kg. For dairy products, the environmental cost of waste is NIS 2.3 (USD \$0.62) 0 per kg at the agricultural stage, increasing to NIS 2.90 (USD \$0.78) per kg if discarded by consumers. Fruit and vegetables lost in the field carry an environmental cost of NIS 0.90 (USD \$0.24) per kg, which nearly doubles if discarded by consumers.

The sources of environmental costs vary by food type. For meat, eggs, and fish, about half of the environmental cost

comes from natural resource depletion. For dairy products, the primary cost driver is greenhouse gas emissions and air pollution. In contrast, for fruit and vegetables, the cost is evenly distributed between waste treatment, natural resource loss, and emissions.



Animal-based food has the highest environmental impact

Greenhouse Gas Emissions from Food Loss and Waste Worldwide

According to UN estimates (2024), global food loss and waste totals around 1.7b tons per year, including approximately 1.05b tons wasted at the consumption stage. The production and cultivation of food that is never consumed generate an estimated 4.3b tons of greenhouse gas emissions annually. This figure includes emissions produced at every stage of food cultivation and production, as well as those associated with food disposal and waste treatment<sup>17</sup>. The global environmental cost of these emissions is valued at

roughly \$515b per year<sup>18</sup>. This cost varies across regions depending on local conditions, agricultural practices, and the types of crops produced.

In Israel, the production and cultivation of food that is never consumed generate about 5m tons of greenhouse gas emissions, accounting for about 6% of the country's annual greenhouse gas emissions.



17. As the FAO study did not quantify air pollutant emissions resulting from food production and disposal, the comparison presented below refers only to greenhouse gas emissions.

18. The assessment was conducted by the FAO in 2014.



# (7) FOOD RESCUE: ECONOMIC, SOCIAL, HEALTH, AND ENVIRONMENTAL BENEFITS







# 1.2 MILLION TONS

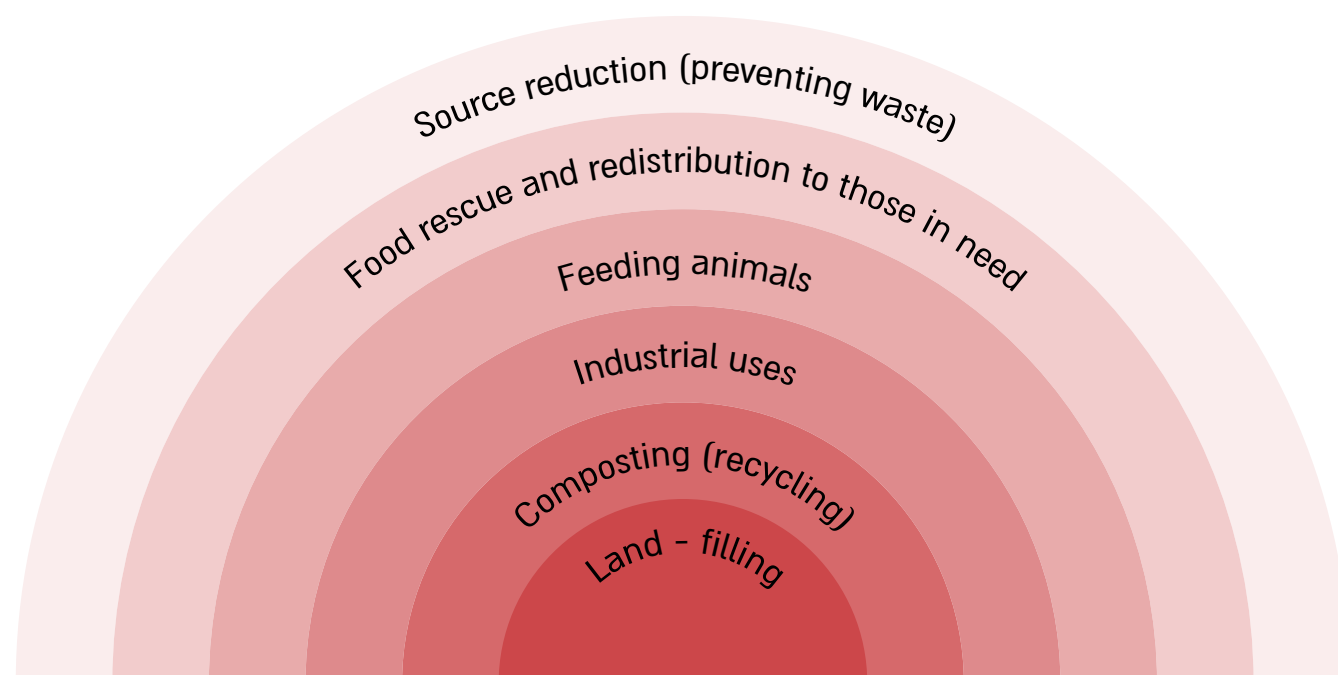
of lost and wasted food was rescuable in Israel in 2024

The convergence of the climate crisis, widespread and increasing food and nutrition insecurity in Israeli households, and the resulting burdens on the national economy and healthcare system underscores the urgent need to adopt food rescue as a key national policy tool.

Food loss and waste is a global phenomenon that extends far beyond Israel, occurring on a comparable scale across most developed economies. According to UN estimates, more than one-third of all food produced worldwide is wasted when measured by quantity, about one-quarter when measured in caloric value.

The European Union's Food Waste Directive sets out a clear hierarchy for managing surplus food, establishing a prioritized framework for action. Each tier in this hierarchy represents a distinct strategy for addressing food loss and waste, with clear preference given to preventing waste at the source and redirecting surplus food to vulnerable populations. These are the most effective approaches, offering the greatest environmental, economic, and social benefits.

## The Economic - Environmental Hierarchy for Managing Food Waste



Source: EPA

There are many policy tools designed to support vulnerable populations and address food insecurity. In Israel, the most common policy measures include donations, subsidies, allowances, and financial aid. The unique advantage of food rescue lies in its ability to alleviate food insecurity at a much lower fiscal and economic costs. Instead of funding the full cost of purchasing food, the state and supporting organizations only need to fund the rescue of surplus food.

In both Israeli and global socioeconomic discourse, a long-standing debate exists between advocates of economic growth as the primary policy goal ("growing the pie") and those who prioritize reducing inequality.

Food rescue offers a unique policy tool that inherently integrates these two approaches. Rescuing surplus food for consumption by vulnerable populations simultaneously increases economic output and reduces inequality.

In addition, in light of crises and emergencies such as the COVID-19 pandemic and the climate crisis, there are plausible scenarios of instability in both local and global food supply. In this context, food rescue serves as a means to expand food reserves and help ensure food security during such times.

### The importance of food rescue lies in four key benefits:

**1. Economic benefit** - The costs of lost and wasted food accumulate along the entire value chain - from cultivation and production to marketing, distribution, and consumption - and ultimately fall on the consumer. Food loss and waste also reduces national productivity, as valuable inputs of labor, land, and resources go to waste. Food rescue, by contrast, turns waste with little or no value into a valuable economic resource, redirecting it to populations in need without requiring additional production inputs. Since rescued food retains its full nutritional value and costs significantly less than producing and transporting food, food rescue contributes directly to economic growth and improved productivity.

**2. Social benefit** - Food loss is one of the factors driving the high cost of living in Israel. By recovering and redistributing edible food, food rescue reduces social inequality and eases the financial burden on households, while also addressing food insecurity among vulnerable populations, all at a significantly lower cost than conventional welfare programs or subsidies.

**3. Health benefit** - The right to food goes beyond calorie intake; it also includes nutritional quality and food safety. Economic access to a healthy, balanced diet is essential for physical, mental, and cognitive well-being and a key condition for true food security. Food insecurity increases the risk of chronic and mental illness, lowers academic achievement and earning potential, and, at a national level, leads to higher healthcare costs and reduced productivity. By rescuing nutritious foods, especially fruit and vegetables, and distributing them to food-insecure populations, food rescue can help reduce the prevalence of food insecurity and ease the burden of excess healthcare costs on Israel's economy.

**4. Environmental benefit** - Across the stages of cultivation, production, distribution, and retail in Israel, approximately 38% of domestically produced food is lost or wasted. Along with the food itself, all the resources invested in its production are also lost, including land, water, fertilizers, chemicals, and energy. Since a portion of food production is dedicated to growing animal feed, these losses also reflect substantial resource use in livestock agriculture. Many of the resources consumed by the food industry are non-renewable, and their extraction and use have significant impacts on water, soil, air, and biodiversity. In addition, agriculture contributes to greenhouse gas emissions and air pollution due to its intensive use of energy and fuel.

These environmental costs do not end once the food is produced but are compounded when the food is discarded. In Israel, most food waste ends up in landfills, where decomposing organic matter releases methane, a potent greenhouse gas that accelerates climate change and degrades soil quality. Additionally, roughly one-third of household waste consists of organic food waste. This not only increases the total volume of waste requiring treatment but also contaminates recyclable materials, undermining the efficiency of recycling systems and placing further strain on the environment.

Food rescue helps prevent these impacts by making full use of the resources already invested in food production and avoiding additional environmental and economic costs.

**Together, these benefits make food rescue a uniquely powerful and cost-effective policy tool. The launch of Israel's National Program for the Reduction of Food Loss and Waste in September 2025 marks an important step in the government's recognition of the wide-ranging benefits and national significance of this approach.**

Food Production vs. Food Rescue

	Output	Nutritional value	Land use	Water use	Greenhouse gas emissions during cultivation	Use of fertilizers and pesticides	Logistics, distribution, and transport costs
Food Production	Nutritious food	100%	Yes	Yes	Yes	Yes	Yes
Food Rescue	Nutritious food (may have minor aesthetic imperfections)	100%	Minimal <sup>1</sup>	Minimal <sup>2</sup>	None	None	Yes



Source: EPA



About half of all food lost and wasted in Israel—more than 1.2m tons—is rescuable. Its recovery could reduce national greenhouse gas emissions by around 6% while saving the economy an estimated NIS 5.8b (USD \$1.57b) in excess healthcare costs.

Most food rescue efforts in Israel and worldwide are carried out by nonprofit organizations supported by donations. However, even when funded through philanthropy, the underlying rationale of food rescue is not charity, but rather its role as a viable economic alternative to food production—one that generates direct economic value for the national economy while simultaneously reducing social inequality.

The direct cost of food rescue in Israel averages NIS 1.7 per (USD \$0.5) per kilogram, while the direct market value of

rescued food is approximately NIS 6.1 (USD \$1.65) per kilogram, representing a return of 3.6 times the investment. In other words, every shekel invested in food rescue generates NIS 3.6 worth (USD \$1) worth of food products for food-insecure populations. While food rescue in Israel is still in its early stages, there is significant potential to scale up operations, improve efficiency, and increase the value of rescued food. However, to maintain a conservative approach, the estimates in this Report are based on current cost structures.

From a national economic perspective, the overall benefit of food rescue extends beyond direct savings and includes environmental and health gains. The environmental benefit from reducing greenhouse gas emissions, air pollution, and waste treatment costs is estimated at NIS 1.1 (USD \$0.30) per kilogram, bringing the total return on investment to 4.2

1. Most of these resources have already been invested in growing and producing the food, therefore the additional resources needed for rescue are negligible.  
2. Ibid.

3. Out of a total of 80m tons of greenhouse gas emissions produced annually in Israel.

Estimated Feasibility of Food Rescue Cost-Benefit per Kilogram of Food

	National benefit including greenhouse gas and air pollutant emissions and waste treatment	National benefit excluding greenhouse gas and air pollutant emissions	National benefit including greenhouse gas and air pollutant emissions, waste treatment, and health costs
Value of Rescued Food*	NIS 6.1 (USD \$1.65)	NIS 6.1 (USD \$1.65)	NIS 6.1 (USD \$1.65)
Environmental Benefit (BDO)	NIS 1.1 (USD \$0.30)	Not included	NIS 1.1 (USD \$0.30)
Health Benefit (BDO)	Not included	Not included	NIS 10.9 (USD \$2.95)
Total Value to the National Economy	NIS 7.2 (USD \$2)	NIS 6.1 (USD \$1.65)	NIS 18.1 (USD \$5)
Rescue Cost	NIS 1.7 (USD \$0.5)	NIS 1.7 (USD \$0.5)	NIS 1.7 (USD \$0.5)
Net Benefit	NIS 5.5 (USD \$1.5)	NIS 4.4 (USD \$1.2)	NIS 15.4 (USD \$4)
Value Multiplier (Total Value/Rescue Cost)	4.2	3.6	10.7

\* Market price of an equivalent product with the same nutritional value

Source: BDO estimates





# (8) GLOBAL FOOD LOSS AND WASTE AND STRATEGIES FOR REDUCTION





# FOOD LOSS AND WASTE WORLDWIDE

The FAO defines food loss as the decrease in the quantity or nutritional value of parts of edible food intended for consumption by humans that occurs along the production and supply chain, before it reaches consumers. Food waste refers to food discarded at the consumption stage, i.e. in households, dining establishments, and institutions.

In 2011, the FAO published its first global report on food loss and waste, estimating that approximately 1.3b tons of food—about one-third of all food produced for human consumption—are lost or wasted each year worldwide. A decade later, in 2021, the United Nations Environment Programme (UNEP) updated these figures in its Global Food Waste Index Report, raising the estimate to 1.7b tons annually. For the first time, the report provided a separate estimate for food waste at the consumption stage (households and institutions), which totaled around 931m tons per year. The most recent UN report, published in 2024, increased this figure to 1.05b tons, offering further detail: roughly 60% of food waste at the consumption stage occurs in households, 28% in food services, and 12% in retail.

These findings highlight that food waste at the consumption stage affects all countries, across all income levels.

### The UN Global Food Waste Index cites findings from the Food Waste and Rescue Report in Israel prepared by Leket Israel, the Ministry of Environmental Protection, and BDO

The UN Global Food Waste Index<sup>1</sup> was developed to support progress toward the UN’s sustainable development goal<sup>2</sup> of reducing global per-capita food waste by 50% by 2030. It complements the Food Loss Index published by the FAO, which focuses on losses occurring during agricultural production, sorting, packaging, and industrial processing.

1. United Nations Environment Programme (2021). Food Waste Index Report 2021. Nairobi  
2. SDG 12.3 <https://www.fao.org/sustainable-development-goals/indicators/1231/en>

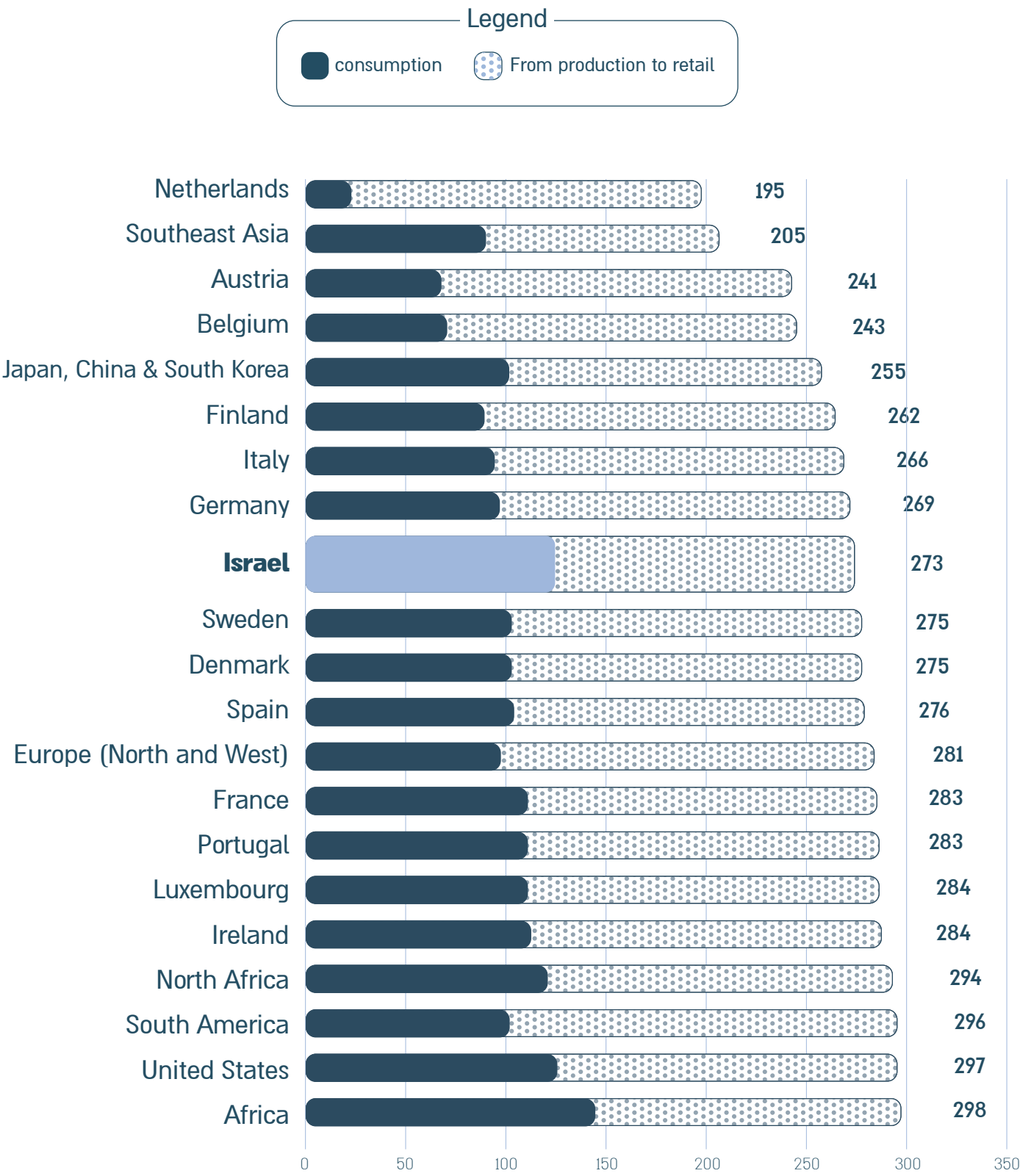


**Key findings from the 2024 UN Report:** Consumer Food Waste is Higher than Previously Estimated and Continues to Rise

The latest UN report notes that the extent of global food waste has long been unclear, as previous estimates were based on limited and often outdated data from a small number of countries. The updated report now presents a comprehensive and current global overview, drawing on broader and more reliable data covering food waste across retail, institutional, and household consumption. It also introduces an updated global estimate of food waste rates, offering a clearer picture of the global scope of the problem.

The UN report synthesizes findings from 84 studies on food waste across various countries. Of these, 52% were academic studies, 33% were carried out by government institutions, 10% by nonprofit organizations, and 6% by other entities. With regard to Israel, the report cites and relies on the findings of the Food Waste and Rescue Report in Israel, prepared by Leket Israel, the Ministry of Environmental Protection, the Ministry of Health, and BDO.

## International Comparison of Per-Capita Food Waste, Kg per Year



Sources: FAO, UNEP, and BDO analysis; Israel data based on BDO estimates.



As shown in the graph above, the UN report finds that per-capita food waste at the consumption stage in Israel is comparable to levels in the United States, lower than in Africa, but higher than in Europe. The report does not offer an explanation for these variations.

A study on household food waste in Israel<sup>3</sup>, conducted by Prof. Ophira Ayalon, Dr. Efrat Elimelech, and Dr. Eyal Art, found that when households separate their waste at the source, less food tends to be wasted. In Israel, unlike in most European countries, waste separation at source has not yet been implemented, which may help explain the high level of food waste at the consumption stage.

The UN recognizes food waste reduction as a key component of sustainable development and a crucial strategy for addressing global food insecurity. In its latest report, the UN notes that global estimates of food waste are unreliable and calls on countries to measure and monitor food waste domestically, develop coherent national policies, and pursue

untapped opportunities to address the challenge. This is aligned with Israel's ongoing efforts. For the past nine years, Leket Israel and BDO, in collaboration with the Ministry of Environmental Protection (for the past five years) and the Ministry of Health (for the past two), have published the National Food Waste and Rescue Report. The Report provides an annual estimate of food waste in Israel, together with policy recommendations for its reduction, positioning Israel as a pioneer in this field.

In Israel, where household spending on food represents a significant portion of total consumption, and amid ongoing challenges such as the high cost of living and reduced food accessibility during the Iron Swords War, addressing food waste is critical. Moreover, the routine disposal of food with clear economic and nutritional value indicates a market failure that calls for proactive government intervention to ensure more efficient use of this vital resource.

In light of these challenges, it is important to examine the leading policy tools adopted worldwide to reduce food waste.



Volunteers at a food rescue organization, Texas. Photo: Tarrant Area Food Bank.

3. Household Food Waste Study, conducted by Prof. Ophira Ayalon and Dr. Efrat Elimelech (University of Haifa), and Dr. Eyal Art (Hebrew University of Jerusalem), on behalf of the Chief Scientist's Office at the Ministry of Agriculture, under the management of the Volcani Institute.

# POLICY TOOLS FOR REDUCING FOOD WASTE WORLDWIDE AND IN ISRAEL

In collaboration with the Global Food Donation Policy Atlas

Across the world, governments are adopting a variety of policy tools to address food loss and waste. These measures aim to prevent food surpluses at the source, rescue and redistribute edible surplus food, and encourage sustainable waste management through composting and anaerobic digestion, rather than landfilling.

In this context, international initiatives are advancing efforts to gather and share knowledge and strategies to effectively reduce food loss and waste.

The FAO and UNEP have developed complementary international indicators that enable consistent measurement of food loss and waste at the national level. These indicators provide a quantitative foundation for comparing countries, supporting data-driven policymaking, and tracking progress and trends in food loss and waste reduction over time.

The European Commission, through the EU Food Loss and Waste Prevention Hub (FLWPH), compiles and shares information on policies and legislation adopted by European countries in this field.

In June 2023, Israel launched the Food Surplus Donations in Israel: Legal Guide and Policy Recommendations Report, prepared in collaboration with the Harvard Law School Food Law and Policy Clinic (FLPC)<sup>4</sup>, the Global Foodbanking Network (GFN)<sup>5</sup>, the Global Food Donation Policy Atlas<sup>6</sup>, the Ministry of Environmental Protection, and Leket Israel.

The FLPC and GFN launched the Global Food Donation Policy Atlas in February 2019. The initiative focuses on non-EU countries and aims to advance food donation, rescue, and waste-reduction policies, legislation, and regulations, while removing barriers that hinder these efforts.

The Atlas partnership's work includes:

1. Identifying and publishing food donation and rescue laws in a growing list of countries;
2. Analyzing common legal and regulatory barriers that prevent food recovery and donation;
3. Sharing best practices to help governments and organizations overcome these barriers.

Within this framework, the Atlas publishes comprehensive, country-specific reviews covering a wide range of policies and regulations related to food waste and rescue. It also highlights several key policy tools and identifies countries that demonstrate best practices in implementation.



OECD countries use integrated policy tools to reduce food waste

4. Harvard Law School Food Law and Policy Clinic

5. The Global FoodBanking Network

6. <https://atlas.foodbanking.org/atlas.html>

## Best practices identified by the Atlas partnership and the European Commission, Compared with the situation in Israel:

### 2. NATIONAL STRATEGY FOR FOOD LOSS AND WASTE REDUCTION

Adopting a comprehensive national framework to reduce food loss and waste across the supply chain establishes a clear, coordinated policy aimed at both minimizing food loss and waste and promoting food rescue. Such a strategy may incorporate all the policy tools outlined above, and additional measures as needed.



#### Australia - National Food Waste Strategy, 2017<sup>7</sup>

- The strategy's goal is to reduce food waste by 50% by 2030.
- To support this target, a feasibility study was conducted to examine how a 50% reduction could be achieved. The study found that the goal could be met within seven years, provided it is supported by:

- \* Significant investment in innovation
- \* Financial incentives for implementation
- \* Adoption of strict regulatory measures
- \* Promotion of voluntary commitments to reduce food waste
- \* Active participation of the food industry and civil society

- Based on these findings, the Department of Agriculture, Water and the Environment (DAWE) developed and published the National Food Waste Strategy, focusing on four main areas: supporting policy development, improving business performance, developing markets, and driving behavior change.

- The supporting policy framework also centers on four key courses of action:

- \* Establishing a national food waste baseline and a standardized methodology for measuring progress against the target;
- \* Identifying priority areas for investment;
- \* Promoting voluntary commitments to reduce food waste;
- \* Advancing legislation that supports food waste reduction and rescue.

- To date, progress against the baseline has not been measured.



#### Israel

In 2025, the Ministry of Environmental Protection published Israel's first-ever National Program for the Reduction of Food Loss and Waste. The program was developed through a comprehensive process that included mapping barriers along the food value chain and identifying practical solutions, which were consolidated into five strategic action areas: data accessibility, waste regulation, behavioral change, expansion of food rescue, and coordination and synchronization. Some of these focus on prevention and source reduction of food surpluses, while others address food rescue and redistribution. In total, the program outlines 16 specific action channels across these five areas, along with two cross-cutting measures: (1) establishing a national knowledge and measurement infrastructure; and (2) investing in innovation to reduce food loss and waste throughout the supply chain. The preparation of the program included a broad consultation process involving approximately 130 stakeholders and experts from government, industry, and civil society.

The National Program for the Reduction of Food Loss and Waste builds on the earlier work of a joint task force established by the Ministry of Environmental Protection and the Ministry of Agriculture and Food Security, which operated within the framework of Israel's National Food Security Program.



7. 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>

### 2. NATIONAL TARGET FOR FOOD LOSS AND WASTE REDUCTION

Setting a national target to reduce food loss and waste by 50% by 2030 aligns with the United Nations Sustainable Development Goals (SDGs) for 2030.

#### United States, Canada, most European countries, and Australia

have all announced similar commitments to halve food loss and waste by 2030.



#### Israel

In 2021, the Israeli government published two key policy documents: the 100 Steps Plan to Address the Climate Crisis, which was formally approved by the government, and the National Strategy for Source Reduction of Waste.

In September 2025, the Ministry of Environmental Protection launched the National Program for Food Loss and Waste Reduction, which set national goals under two progress scenarios:

- Moderate scenario: A 25% reduction in food loss and waste by 2050, aligned with the intermediate "efficiency scenario" for agricultural production outlined in the National Food Security Program.
- Advanced scenario: A 50% reduction in food loss and waste by 2050.

The program also defines targets for expanding food rescue efforts in Israel, under corresponding progress scenarios:

- Moderate scenario: Rescue of 10% of total food loss and waste by 2050 (equivalent to 22.5% of all rescuable food).
- Advanced scenario: Rescue of 19% of total food loss and waste by 2050 (equivalent to 44% of all rescuable food).



### 3. GOVERNMENT GRANTS AND INCENTIVE PROGRAMS

National and local grant funding, along with incentive programs, serve as key resources for advancing food donation and rescue efforts.



#### United States

- Federal support is provided through The Emergency Food Assistance Program (TEFAP), which allocates approximately \$100m annually for administrative support and an additional \$500m for local food rescue and assistance organizations.
- Several federal grant programs also provide funding for food banks and food rescue initiatives.
- In addition, a number of U.S. states allocate dedicated budgets to emergency food purchase programs.



#### France

- A €60m fund was established under the Better Food for All program.
- The initiative aims to expand access to healthy, high-quality food for vulnerable populations.
- The fund supports nonprofit organizations and food banks, enabling them to purchase or rescue fresh produce such as fruit, vegetables, legumes, and other unprocessed foods that meet the EGalim quality standards established by law.



#### Israel

Under the 2022 Food Security Initiative, rescued food was officially recognized as a legitimate alternative to purchased food. The tender defines "rescued food" as food suitable for human consumption and of full nutritional and health value that has been saved from destruction. This includes surplus agricultural produce that remained unharvested, was not exported, or went unsold in the local market, as well as produce rejected for sale due to cosmetic imperfections. In 2024, the Ministry of Welfare further revised the eligibility criteria for its food basket support program, making it possible, for the first time in Israel, to provide government funding for food sourced through rescue operations, including portions of the basket comprising rescued fruit and vegetables. The National Program for Food Loss and Waste Reduction also outlines targeted measures to promote food rescue and prevent waste, presenting a clear roadmap for implementation in the coming years.



## 4. TAX INCENTIVES

- Tax benefits that create a financially viable alternative to the disposal of edible surplus food.
- VAT exemptions on food donations made to food banks, aimed at removing potential financial barriers.



### United States - Internal Revenue Code (IRC)<sup>8</sup>

- The U.S. tax code provides incentives for businesses to encourage the donation of surplus food.
- The code allows a double tax deduction for food donations:

\*A standard deduction equal to the cost of acquiring the donated food<sup>9</sup>;

\*An enhanced deduction, which offers an additional incentive by allowing the donor to deduct the lesser of: (a) twice the cost basis of the donated food, or (b) the cost basis plus half of the expected profit had the food been sold at fair market value. This enhanced deduction can reach up to twice the standard deduction, with businesses permitted to deduct up to 15% of their taxable income for food donations<sup>10</sup>.



### Israel

- Under the Income Tax Ordinance, food donations valued at more than NIS 190 (USD \$51) are eligible for a 35% income tax credit based on the value of the donation.



OzHarvest initiative, Australia. A supermarket based on the philosophy *"take what you need, give if you can"*, aiming to make rescued food accessible to those who need it most. Credit: OzHarvest.

## 5. MANDATORY FOOD DONATION

Requiring food suppliers to collaborate with non-profit organizations to donate unsold food that is still safe and suitable for human consumption.



### France - Food Waste Prevention Legislation

- The Garot Law on Combating Food Waste (2016)<sup>11</sup> - introduced a legal obligation for large supermarket chains (over 400 m<sup>2</sup>) to donate edible surplus food to food banks. Retailers that violate the law face fines ranging from €3,750 to €75,000.
- Following the law's implementation, food donations from supermarkets increased by approximately 20%<sup>12</sup>.
- The EGalim Law (2019)<sup>13</sup> further extended this obligation to large institutional caterers (serving more than 3,000 meals per day) and to major food producers and wholesalers with an annual turnover exceeding €50m.



### Israel

- Food suppliers are not currently required by law to collaborate with non-profit organizations for the donation of unsold edible food.
- In November 2024, however, the Knesset approved an amendment requiring government companies and public institutions to donate their surplus food. The legislation applies to entities that provide at least 500 meals per day, including government ministries, local authorities, and public corporations. Its purpose is to reduce food waste, encourage social responsibility, and support the battle against food insecurity.

## 6. DATE LABELING

To reduce consumer confusion about the meaning of date markings on food labels and to ensure the safety of donated food, three complementary policy tools are recommended:

- Clear labeling regulations that distinguish between two types of date labels: A safety-based label, indicating that consuming the food after the specified date may pose a health risk; and a quality-based label, where consumption after the date does not present a safety concern.
- Legislation permitting the sale or donation of food past its quality-based label date.
- Public awareness campaigns designed to educate consumers and reduce confusion surrounding expiration and date labeling.



### United Kingdom - "Label Better, Less Waste" Date Labeling Guidelines<sup>14</sup>

- In accordance with the UN Codex Alimentarius recommendations, the United Kingdom has adopted a mandatory labeling policy that classifies food products into two categories, assigning each either a safety-based label ("Use by") or a quality-based label ("Best before").
- The policy explicitly prohibits the sale or donation of food after its "Use by" date, while allowing both sale and donation of food beyond its "Best before" date.
- To complement this policy, the UK government, in collaboration with WRAP<sup>15</sup>, has launched a series of public education campaigns to increase awareness of food waste reduction strategies and improve consumer understanding of date labeling.



### Israel

- Two distinct date markings are used to differentiate between food safety and food quality: "Use by" (safety-based) and "Best before" (quality-based).
- Current legislation prohibits the sale or donation of food after its expiration date, regardless of whether it refers to safety or quality.

• However, Section 12 of the Public Health Protection (Food) Law allows the use of food past its expiry date under certain conditions, while Section 162 addresses the feasibility of distributing expired food by nonprofit organizations.

• In 2017, a review of Israel's standard for labeling prepackaged food was conducted. The Ministry of Environmental Protection and the Ministry of Economy proposed a series of updates aimed at reducing food waste and increasing public awareness of date labeling. The proposals included aligning the list of products exempt from expiration labeling with the European directive, allowing expiration dates to appear by month and year only, or by year alone, depending on product sensitivity, and launching a public information campaign to clarify the meaning of the labels. Although some of these proposals were adopted, in practice, manufacturers continue to print full expiration dates on all products, and there has been no significant change in labeling practices.



8. <https://www.law.cornell.edu/uscode/text/26/170>

9. I.R.C. § 170(e)(1); 26 C.F.R. § 1.170A-4(a)(1) (2018)

10. 26 C.F.R. 1.170A-4A(b)(2)(ii)(A) (2019)

11. <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000032036289/>

12. <https://chpi.org/news-and-events/news-and-commentary/food-law-and-policy/webinar-review-waste-bans-penalties/>

13. <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000037547946/2021-03-25/>

14. <https://wrap.org.uk/sites/default/files/2020-07/WRAP-Food-labelling-guidance.pdf>

15. The Waste and Resources Action Programme



## 7. SAFETY REGULATIONS FOR FOOD DONATIONS

Establishing a clear legal framework that provides detailed guidance on food safety standards for donated and rescued food.



**India** - Food Safety Regulations (Recovery and Distribution of Surplus Food)<sup>16</sup>

- Defines the responsibilities of food donors and surplus food distribution organizations, designating the Food Safety Authority as the lead regulatory body.
- Sets labeling requirements for donated food.
- Establishes a mandatory registration and tracking system for surplus food.



**Israel** - The Public Health Protection (Food) Law, 2015<sup>17</sup>

- Regulates the use of food surpluses under Section 11.
- Section 159 exempts nonprofit food distribution organizations from obtaining production, transport, and storage licenses. This exemption was extended under the Economic Arrangements Law for 2021–2022, however the required accompanying regulations<sup>18</sup> have not yet been enacted.
- Section 162 allows food distribution organizations to use non-perishable products past their “best before” date, provided they have written authorization from the manufacturer.



Volunteers at the Cyrenians FareShare food rescue organization, Scotland. Credit: Asda.

## 8. LIABILITY PROTECTION FOR FOOD DONATION

Legislation that exempts food donors, holders, transporters, and distributors from criminal and civil liability for damages arising from donated food, provided they have acted lawfully and without negligence.



**United States** - The Bill Emerson Good Samaritan Food Donation Act (1996)<sup>19</sup>

- Provides federal protection from civil and criminal liability for food donors and nonprofit organizations that distribute donated food under specific conditions, namely, that the food is donated in good faith to a nonprofit organization that distributes it free of charge to those in need, and that it meets applicable food safety standards.
- Several U.S. states extend broader protections to additional types of food donations: Arizona, California, Massachusetts, Minnesota, Nevada, New Hampshire, New Mexico, Vermont, Rhode Island, and Tennessee provide liability protection for direct donations to individuals in need, and Alaska, Arizona, Hawaii, Kentucky, Maine, Massachusetts, New Hampshire, New Jersey, Ohio, Rhode Island, and Tennessee extend protection to donations of food past its expiration date.
- In 2021, an amendment to the Act was introduced in the U.S. Senate and House of Representatives seeking to expand food donation opportunities across the country. The proposal would permit direct donations by entities such as grocery stores, restaurants, and schools, but has not yet been enacted.
- As of 2024, there has been no federal legislative breakthrough mandating food donation, though USDA support programs have expanded in several states, with a focus on refrigeration, infrastructure, and reducing logistical costs.



**Israel** - The Food Donation Encouragement Law, 2018

- The law aims to promote food rescue and donation by providing liability protection for entities involved in the process. It stipulates that any person or organization donating food to a food distribution nonprofit, as well as organizations that transport, store, or distribute donated food, shall not bear civil or criminal liability for damages arising from the

donation, provided they have acted in accordance with all applicable laws and without negligence.

- Under the amendment to the law, approved in November 2024, public institutions in Israel that serve at least 500 meals per day are required to donate surplus food that meets the prescribed safety and quality standards. The amendment also establishes a monitoring and reporting mechanism, requiring donating institutions to report the quantities and types of food donated, while enabling the state to track and oversee compliance.

## 9. BAN OR TAX ON LANDFILLING ORGANIC WASTE

Landfill bans or taxes on organic waste serve as policy tools to influence business behavior and encourage waste reduction.



**United States** - Legislation restricting the landfilling of organic waste by large waste generators.

- Several states, including California, Connecticut, Massachusetts, Rhode Island, and Vermont, have enacted laws prohibiting the disposal of food waste in landfills.
- In Vermont, the Universal Recycling Law (2012)<sup>20</sup> introduced a gradual phase-out of food waste disposal, culminating in a complete ban in 2020 for both businesses and households. Following the law's implementation, the Vermont Foodbank reported an increase of approximately \$40m in food donations.
- In Massachusetts, the landfilling of food waste is prohibited<sup>21</sup> for businesses generating more than one ton of food waste per week.

A 2016 study found that this ban generated \$175m in economic activity and created over 900 jobs across food waste collection, processing, and recovery sectors.



**Scotland** - Graduated Landfill Tax<sup>22</sup>

- Scotland applies a two-tier landfill tax for waste disposal: a standard rate of £98.60 per ton and a lower rate of £3.15 per ton for waste with low greenhouse gas and pollution potential, such as material with low organic content that is non-biodegradable and non-hazardous.

- This graduated tax structure aims to discourage the landfilling of food waste and promote waste management practices that align with the food use hierarchy.



**Israel**

- Since 2007, Israel has imposed a landfill levy requiring landfill operators to pay a fee for every ton of waste disposed<sup>23</sup>. However, landfilling in Israel remains significantly cheaper<sup>24</sup> – compared to both global standards and alternative waste treatment methods. The levy applies to all waste types, offering no specific incentive to divert organic waste from landfills, despite slight rate differences between mixed and dry waste.
- A voluntary mechanism has been established whereby municipalities may, through a municipal bylaw, impose a designated fee on businesses for the collection of excess commercial waste (not limited to food waste)<sup>25</sup>. In practice, however, this mechanism is rarely implemented due to its operational complexity.
- There is currently no ban on landfilling organic waste. However, under National Outline Plan 1 (TAMA 1), new landfill cells designated for mixed waste, i.e. waste containing biodegradable components, may be used only after the waste has been sorted and all recyclable materials, including biodegradable elements, have been removed.



Volunteers at a food rescue organization, Texas. Photo: Tarrant Area Food Bank.

16. [https://www.fssai.gov.in/upload/uploadfiles/files/Gazette\\_Notification\\_Surplus\\_Food\\_06\\_08\\_2019.pdf](https://www.fssai.gov.in/upload/uploadfiles/files/Gazette_Notification_Surplus_Food_06_08_2019.pdf)

17. [https://www.nevo.co.il/law\\_html/law01/049\\_062.htm#med1](https://www.nevo.co.il/law_html/law01/049_062.htm#med1)

18. Economic Arrangements Law (Legislative Amendments for the Implementation of the Economic Policy for the 2021-2022 Budget Years), 5781–2021.

19. <https://www.law.cornell.edu/uscode/text/42/1791>

20. <https://www.mass.gov/guides/commercial-food-material-disposal-ban>

21. <http://www.mass.gov/eea/docs/dep/recycle/priorities/orgecon-study.pdf>

22. <https://www.gov.scot/policies/taxes/landfill-tax/>

23. Pursuant to Amendment No. 9 of the Maintenance of Cleanliness Law.


24. NIS 111.34 per ton of waste, as of January 2022.

25. Based on the “polluter pays” principle and uniform criteria for “excess waste” defined by the Ministry of the Interior.




10. FOOD BANKS WORLDWIDE:  
REGULATORY FRAMEWORKS AND  
GOVERNMENT SUPPORT

Food banks worldwide have become a key policy instrument in addressing both food insecurity and food waste. In many countries, these institutions receive government support through regulatory frameworks, financial incentives, or public infrastructure. In the United States, for instance, federal law defines a food bank as a public or nonprofit organization that operates a structured system for the collection, storage, and distribution of food or food products, including donated items and their derivatives. These food banks supply community aid organizations such as charities, social service centers, and other community institutions that provide meals or food baskets to individuals facing economic hardship and food insecurity, as part of their ongoing operations.<sup>26</sup>




United States

a broad network of food banks receives direct federal support through programs such as TEFAP, which purchases surplus agricultural products for distribution via community food banks<sup>27</sup>. In addition, the Bill Emerson Good Samaritan Food Donation Act provides legal protection to food donors, encouraging greater participation from the private sector in food rescue efforts.



Canada


the federal government leads several direct funding initiatives, including the Local Food Infrastructure Fund, the Emergency Food Security Fund, and the Surplus Food Rescue Program. These programs aim to strengthen physical infrastructure, improve access to food, and rescue surplus agricultural produce that would otherwise be destroyed.



United Kingdom


the Department for Environment, Food and Rural Affairs (DEFRA) supports food waste reduction initiatives in partnership with organizations such as FareShare UK, the country's leading food rescue organization, which works

closely with major retail chains to recover and redistribute surplus food<sup>28</sup>.




France

stands out as a leading example of proactive regulatory policy. Landmark legislation passed in 2016 prohibits large retailers from destroying edible food and requires them to redirect surplus to food aid<sup>29</sup>. This policy has been accompanied by supportive government measures such as tax incentives and investment in logistics infrastructure for organizations like Banques Alimentaires, a nationwide network of food banks that has since reported a significant increase in the volume of food collected and distributed. The French model is frequently cited in international publications as one of Europe's most advanced frameworks for tackling food waste.




Japan

enacted the Basic Act on Promotion of Food Loss and Waste Reduction in 2019, encouraging both institutions and citizens to take an active role in food rescue<sup>30</sup>. Second Harvest Japan, a major food bank, gained particular prominence for its relief efforts following natural disasters in 2024.



South Korea

food bank operations are governed by a structured regulatory framework that includes the Food Donation Encouragement Act and a centralized management system overseen by public authorities<sup>31 32</sup>.



Australia

Foodbank Australia leads extensive nationwide efforts to distribute food and combat hunger. According to its 2024 activity report, approximately 3.7m households experienced food insecurity, with demand for aid rising faster than food suppliers' ability to meet it<sup>33</sup>. The organization's work is supported by both government bodies and civil society organizations. In addition, the government of the state of Victoria operates community grant programs to expand food distribution infrastructure.

This international overview illustrates that in many countries, food banks have become a central pillar of social welfare and nutrition policy, integrating regulation, public funding, private-sector incentives, and civic engagement to tackle food insecurity and food waste through a coordinated, system-wide approach.

26. U.S.C. § 7501(5) (2023). Retrieved from <https://www.law.cornell.edu/uscode/text/7/7501>

27. U.S. Department of Agriculture. (2023). The Emergency Food Assistance Program (TEFAP)

28. Department for Environment, Food & Rural Affairs (DEFRA). (2020).

29. Assemblée Nationale. (2016). Loi n° 2016 138 du 11 février 2016 relative à la lutte contre le gaspillage alimentaire. <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000032047702>

30. Government of Japan. (2019). Act on Promotion of Food Loss and Waste Reduction (Act No. 19 of 2019)

Summary of Key Policy Instruments for Food Waste Reduction and Rescue  
in Selected Countries

According to the Atlas Partnership and European Commission

		Date Labeling	National Strategy for Food Loss and Waste Reduction	Tax Incentives	National Target for Food Loss and Waste Reduction	Mandatory Donations / Food Waste Taxation	Government Incentives	Food Safety for Donations	Legal Liability Protection
France	8/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Canada	7/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Germany	7/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Italy	7/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
The U.K	6/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Denmark	6/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Belgium	6/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Netherlands	6/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Australia	5.5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
U.S.A	5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Spain	5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Portugal	5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Austria	5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Mexico	4.5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Chile	3.5/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Finland	3/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Sweden	3/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Israel	4/8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
% of Countries Implementing the tool		94%	78%	78%	72%	67%	61%	56%	44%

Global Food Donation Policy Atlas<sup>34</sup>, FLWPH<sup>35</sup>, Food Redistribution in the EU<sup>36</sup>, and BDO analysis.

Legend:

Fully

Partially

31. SSN Korea. (2021). Korea Food Bank Center Overview

32. Republic of Korea. (2020). National Food Plan: Enhancing food security and reducing waste

33. Foodbank Australia. (2024). Foodbank Hunger Report 2024

34. <https://atlas.foodbanking.org/country-research.html>

35. [https://ec.europa.eu/food/safety/food\\_waste/eu-food-loss-waste-prevention-hub/](https://ec.europa.eu/food/safety/food_waste/eu-food-loss-waste-prevention-hub/)

36. Food Redistribution in the EU - Mapping and Analysis of Existing Regulatory and Policy Measures Impacting Food Redistribution from EU Member States, European Commission

Among the countries reviewed, 94% have regulations requiring date labeling on food products; 83% offer tax incentives for food donations and have adopted a national strategic plan to reduce food loss and waste; 78% have established a target to reduce food loss and waste by 2030; 67% require businesses to donate surplus food and/or impose taxes on food disposal; 61% provide government grants to support food donation; 56% have food safety protocols for donated food; and 44% provide legal liability protection for food donations.

As a result of implementing these policy tools, several countries have already demonstrated measurable progress. The United Kingdom, for example, achieved a 27% reduction in per-capita food waste (post-agricultural stages) by 2018, compared with the 2007 baseline. Similarly, in the Netherlands, food waste at the consumer stage declined by 29% by 2019, relative to the 2010 baseline. An interim report covering all European Union member states is expected to be released later this year by the European Commission, providing a broader assessment of progress across the region.

A 2020 study by Wageningen Food & Biobased Research<sup>37</sup>, commissioned by the Dutch Ministry of Agriculture, Nature and Food Quality, examined the impact of European policy and regulatory measures on reducing food loss and waste. The study found that among the policy tools reviewed above, financial instruments have the most significant impact on reducing food loss and waste. Specifically, taxes on organic waste disposal were identified as the most effective measure, followed by VAT exemptions for food donations to food banks, which help remove barriers to potential donations.

In Israel, following the enactment of the Food Donation Encouragement Law in 2018 and its expansion through the 2024 amendment, the government published, for the first time, a national program to reduce food loss and waste, outlining clear targets and recommended action channels. Moving forward, it is essential to ensure that the program is adequately funded and implemented in coordination with all relevant stakeholders, in order to realize its full potential for reducing food loss and waste and promoting food rescue, while also addressing inequality and food insecurity within the population.



37. <https://edepot.wur.nl/529888>

# DEVELOPMENTS IN GOVERNMENT ACTIVITY ON FOOD LOSS AND WASTE IN ISRAEL

Even prior to the publication of the program, several government ministries had already been advancing the topic within their respective areas of responsibility:

## The Ministry of Environmental Protection

- This Ministry led the development of Israel's National Program for the Reduction of Food Loss and Waste, in collaboration with the Ministry of Agriculture.
- It also headed an inter-ministerial implementation committee to prepare Israel's food systems for climate change adaptation, with representatives from the Ministries of Agriculture and Rural Development, Health, Intelligence, and Education, as well as from the Institute for National Security Studies (INSS). The committee's report, which includes a dedicated section on food waste reduction, is available on the Ministry's website.
- It coordinated Israel's national engagement in the UN Food Systems Summit, conducting broad stakeholder dialogues with representatives from government ministries, civil society organizations, academia, farmers, and the food industry.
- The Ministry also published the Food Surplus Donations in Israel: Legal Guide and Policy Recommendations Report in June 2023, together with Leket Israel. The report provides a comprehensive overview of the legal and practical aspects of food donation in Israel, along with a comparative analysis of policies and practices in 20 countries worldwide.
- In collaboration with the Ministry of Health, the Ministry is promoting the integration of nutrition and catering criteria for healthy and sustainable food within Israel's public procurement system. These criteria include specific provisions on food waste reduction and food rescue.
- The Ministry supports organizations working to reduce food waste through a call for proposals from environmental organizations. Within this framework, it promotes a range of initiatives targeting the general public, households, and local authorities, focusing on raising awareness, promoting behavioral change, introducing practical tools for reducing waste, and developing local food rescue systems. The Ministry also funds policy research on food waste reduction.
- Public awareness: The Ministry has produced and distributed social media campaigns on food waste reduction, highlighting the scale of the problem, the work of relevant organizations, and consumer tips for minimizing waste.



Over the past year, significant progress has been made in Israel's efforts to reduce food loss and waste, marked by the formulation of a national program that sets clear targets and outlines a series of recommended action channels to provide a coordinated, systemic response to the issue.

- The Ministry's National Waste Strategy explicitly addresses source reduction, including the reduction of food waste.
- Since 2019, the Ministry, in partnership with Leket Israel, has published the National Food Waste Report, which includes a dedicated section on environmental impacts.

## The Ministry of Health

- As part of the National Food Security Plan, the Ministry of Health led the working group focused on the food basket and shifting dietary habits. In planning the food requirements for 2050, the Ministry considered several variables, including projected population growth, changes in consumption habits reflecting a shift toward recommended daily dietary guidelines, and the reduction of food loss and waste along the value chain. The Ministry also participated in the inter-ministerial working group led by the Ministry of Environmental Protection, in cooperation with the Ministry of Agriculture, tasked with developing the National Plan for Reducing Food Loss and Waste.
- The Ministry is advancing a Green Hospitals Initiative, which includes integrating environmental considerations into hospital procurement processes and supplier engagement. The initiative also promotes food waste reduction and food rescue practices, including the development of digital tools to encourage plant-based food choices and food waste reduction.



- In partnership with the Ministry of Environmental Protection, the Ministry is promoting the implementation of health-conscious and sustainable catering and food service criteria in Israel's public procurement system. These criteria address food quality, health, economic, and environmental aspects, including food loss and waste reduction and food rescue.
- As part of efforts to promote healthy eating in municipalities and regional clusters, the Ministry supports educational activities and training programs focused on healthy and sustainable nutrition. These efforts include collaborations with Leket Israel and other organizations to provide knowledge, tools, and skills for reducing food waste.
- The Ministry conducts nutritional oversight in after-school programs under its supervision. These inspections include attention to food waste, and a current research project is underway to develop action plans for food waste reduction in these settings.
- In accordance with the Law on the Supervision of Food Quality and Proper Nutrition in After-School Programs, the Ministry performs routine inspections. Presently, a study is being conducted to analyze inspection data related to food waste at lunch meals, and its findings will guide and strengthen our efforts to reduce food waste.
- The Ministry promotes educational and community-based programs that integrate cooking and participation in community gardens. These programs equip participants with skills for healthy and sustainable eating, and address topics such as food sourcing, the effort involved in food production and preparation, meal planning, appropriate purchasing for household needs, proper storage, leftover utilization, and food waste prevention.
- The Ministry is a partner in drafting the National Plan for Food Security, which includes a focus on reducing food waste and promoting food rescue.
- The Ministry is also involved in research initiatives addressing food insecurity, the cost of a healthy food basket, and "prescription produce" (i.e. providing fruit and vegetables as part of health interventions).
- Since 2023, the Ministry has co-published the National Food Waste and Rescue Reports together with Leket Israel, which now include a dedicated health section.

#### **The Ministry of Labor, Welfare and Social Services**

- In 2017, the Ministry launched the National Food Security Initiative in cooperation with Eshel Jerusalem-Colel Chabad and Leket Israel. The program provides rechargeable food cards at a value of NIS 500 (USD \$135) per month to approximately 11,000 families experiencing severe

food insecurity. The pilot, initiated in February 2017, was implemented across 36 municipalities nationwide with an annual budget of around NIS 65m (USD \$17.6m). Upon joining the program, each family receives a rechargeable card that covers NIS 250 (USD \$67.6) in food purchases (not including tobacco and alcohol) at selected supermarket chains and local stores, and NIS 250 (USD \$67.6) for fresh fruit and vegetables (NIS 180 USD \$48.6) and non-perishable food (NIS 70 USD \$18.9) sourced from rescued surplus produce, which is delivered directly to households.

- In May 2021, a new tender was issued for the operation of the National Food Security Initiative following several program revisions. The number of participating families increased to around 26,000, each receiving a rechargeable card valued at NIS 350 (USD \$94.6) and a fresh fruit and vegetable basket worth NIS 150 (USD \$40.5) delivered directly to their homes. The tender explicitly specifies the inclusion of rescued agricultural produce. The initiative continues to this day, led by Eshel Jerusalem-Colel Chabad in partnership with Leket Israel.
- In 2024, the Ministry of Welfare revised the guidelines for its food basket support program to allow, for the first time in Israel, the inclusion of food sourced from rescue operations, including portions of the basket consisting of rescued fruit and vegetables.

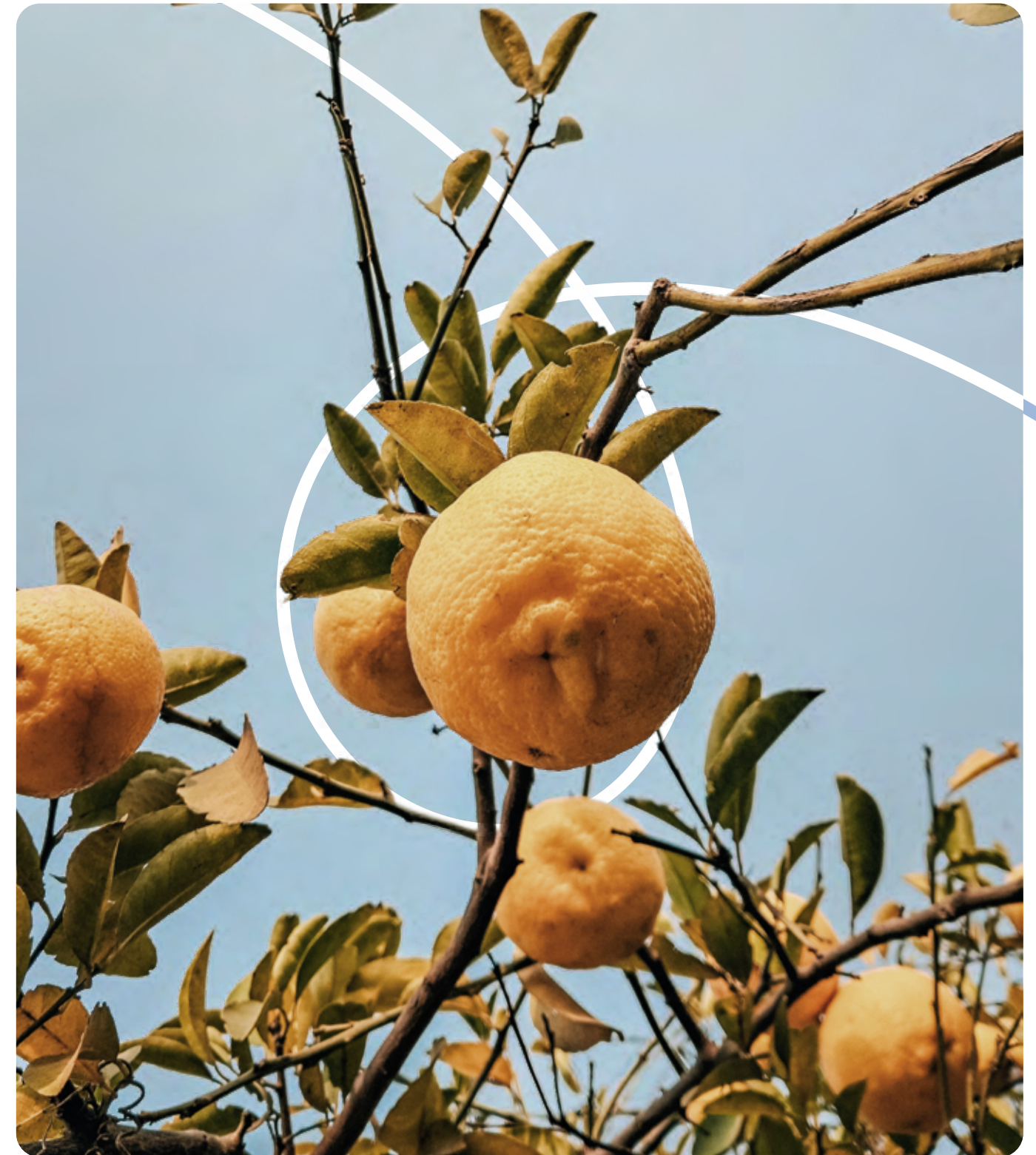
#### **The Ministry of Agriculture**

continues to promote initiatives aimed at reducing food loss and waste throughout the stages of production, distribution, and consumption, including:

- In September 2023, following an internal policy review, an amendment to the Animal Diseases Ordinance (1985) came into effect, transferring responsibility for determining the shelf life of animal-based products such as beef, poultry, and fish, to the manufacturers. This shift aligns with global trends in Europe and the United States, where producers hold primary responsibility for product safety, while veterinary inspection authorities focus on verifying compliance with regulations and ensuring food safety standards are maintained.
- The Ministry's Agricultural Extension and Professional Services Department supports the adoption of advanced cultivation methods and climate-control technologies that help reduce food loss during production, both in fields and orchards. These efforts are backed by grant programs for farmers, designed to encourage innovation, reduce dependency on manual labor, improve climate management, and optimize the use of fertilizers and pesticides. The grants are administered through the Ministry's Investment Administration.

- Researchers at the Agricultural Research Organization support packing houses and sorting stations in adopting and implementing storage technologies that extend shelf life and minimize food loss during storage, as well as advanced methods for detecting defects and removing damaged produce during the sorting stage.

- To reduce food loss during distribution and marketing, and food waste at the household level, the Ministry conducted a life cycle assessment study evaluating the environmental impact of cucumber packaging during these stages, and its effect on shelf life and waste reduction. The study found clear environmental and economic benefits to keeping cucumbers packaged and refrigerated at home, which helps extend their shelf life and reduce spoilage.





# **(9) POLICY RECOMMENDATIONS FOR REDUCING FOOD WASTE AND PROMOTING FOOD RESCUE**





# THE CASE FOR FOOD RESCUE

Over the past decade, Leket Israel's National Food Waste and Rescue Reports have consistently highlighted the strong economic, health, social, and environmental benefits of food rescue. International policy reviews and best practices for reducing food waste, alongside growing recognition of the health benefits of providing nutritious, rescued food, underscore the need to treat food rescue as a key national policy tool.

**Economically:** Food rescue illustrates a clear case of market failure. At current market prices, rescuing surplus food may not seem financially viable for producers or distributors. However, when its full economic value is considered, including the nutritional benefits it provides and the opportunity cost of letting edible food go to waste, food rescue emerges as a highly cost-effective solution for the broader economy.

**Socially:** Donating rescued food to those in need helps reduce inequality and improve food security among the country's most vulnerable populations.

**Healthwise:** Providing healthy, rescued food to individuals facing food insecurity who may otherwise lack access to adequate nutrition directly improves health outcomes and leads to long-term savings in healthcare costs.

**Environmentally:** Food rescue conserves critical resources such as energy, water, land, and chemicals, while reducing greenhouse gas emissions, air pollution, and the volume of waste sent to landfill.



## 1. THE NATIONAL PLAN TO REDUCE FOOD LOSS AND WASTE

In September 2025, the Ministry of Environmental Protection, in collaboration with the Ministry of Agriculture and Food Security and guided by an inter-ministerial committee, released a National Plan to Reduce Food Loss and Waste. This marks the first time that the State of Israel has adopted a comprehensive, system-wide approach to addressing food loss and waste in the country. The plan expands upon and formalizes the food waste section of the National Food Security Program, which also included working groups focused on local agriculture, the food industry, trade and international cooperation, research and innovation, and food baskets and consumption habits. The plan defines 16 action channels, organized under five strategic initiatives.

- Three of these channels focus on prevention and reduction of food waste by:
- Improving access to information
  - Waste regulation
  - Behavioral change
- While the other two focus on food rescue, through:
- Expanding food rescue operations
  - Enhancing coordination and synchronization

The plan sets food loss and waste reduction targets under two scenarios:

Moderate scenario: 25% reduction in food loss and waste by 2050; rescue of 10% of the food currently lost or wasted

Advanced scenario: 50% reduction in food loss and waste by 2050; rescue of 19% of the food currently lost or wasted

The National Plan marks a significant and promising step toward addressing food loss and waste in Israel. It holds real potential to drive meaningful change, but only if it is formally adopted by the government and backed with sufficient funding. Implementing the plan's core components between 2026 and 2030 will require a government investment of NIS 220m (USD \$60m). With effective execution, this investment is expected to make a substantial impact in reducing food insecurity and should be viewed as a strategic, cost-effective investment in the nation's well-being.

In the meantime, food rescue efforts must not wait for the plan's official adoption. As Israel's population grows, so too do levels of food production and waste. Expanding food rescue in the short term is critical. At present, food rescue in Israel depends almost entirely on nonprofit organizations, supported by private donations and surplus contributions from businesses and farmers. Meanwhile, farmers, who are the largest donors of rescued food, face ongoing challenges related to low profitability and economic instability. To scale up food rescue efforts, direct government support is essential. This includes launching grants, tenders, and targeted funding programs to support the distribution of rescued food. In addition, introducing tax incentives for food donations could help close the economic gap and encourage broader participation, ultimately expanding both the volume and impact of food rescue nationwide.



## 2. A PLAN TO REDUCE FOOD LOSS DURING EMERGENCIES

The Swords of Iron War underscored the importance of food security as a pillar of national resilience, and highlighted the urgent need for sustained government support to reduce food loss and promote food rescue during times of crisis.

The war's severe impact on the agricultural sector, resulting in the loss of produce worth hundreds of millions of shekels and contributing to rising food prices, demonstrated the need for a long-term government policy to strengthen domestic food production and reduce dependence on imports.

In recent years, Israeli farmers have been operating in a highly complex and challenging environment shaped by a combination of economic, climatic, and structural pressures. Infrastructure costs, including water, fertilizers, energy, and labor, continue to rise, while market prices for produce remain volatile and often fail to reflect actual production costs. At the same time, climate change is bringing more frequent and extreme weather events, such as heatwaves, droughts, and floods, which destabilize crop yields and increase risks for producers. These challenges are compounded by inadequate infrastructure, complex regulations, and growing competition from subsidized imports, all of which erode the sector's profitability. As a result, many farmers are forced to operate with minimal profit margins, facing persistent economic and planning uncertainty.

To prevent future crises, we recommend implementing a dedicated national plan that enables rapid response during emergencies. This plan should include support mechanisms to strengthen the agricultural sector, including increased investment in innovative technologies, logistical infrastructure, and incentives to reduce food loss and waste. Additionally, a formalized agricultural volunteer corps, similar to a civilian reserve model, should be developed to allow for the rapid mobilization of labor during times of crisis. Such a model would ensure the availability of agricultural manpower during emergencies and help prevent the loss of critical produce.



The state should also establish a stable, multi-year policy framework that enables farmers to recover, maintain stable prices, and reinforce national food security. Consistent support for the agricultural sector will not only help address future crises but also promote the development of sustainable agriculture that serves the Israeli economy in the long term.

This recommendation aligns with the State Comptroller's Report on Ensuring Israel's Food Needs in Emergencies, published in October 2025, which emphasized the need for an emergency plan based on lessons learned from the Swords of Iron War, particularly regarding food security in Israel.

**3. ADVANCING EMERGING LEGISLATION AND THE NEED FOR REGULATORY FRAMEWORKS TO PREVENT FOOD LOSS**

Reducing food loss and waste in Israel requires a clear legislative framework that encourages food rescue and prevents the destruction of edible food. The National Plan for Reducing Food Loss and Waste recommends reviewing several legislative initiatives, including a mandatory food donation law, amendments to extend the shelf life of non-perishable raw materials, and legislation to impose a levy on food waste.

In addition to these proposals, there is a need to finalize existing legislative processes and promote broader regulatory frameworks that can offer long-term solutions to food waste reduction and improved food security.

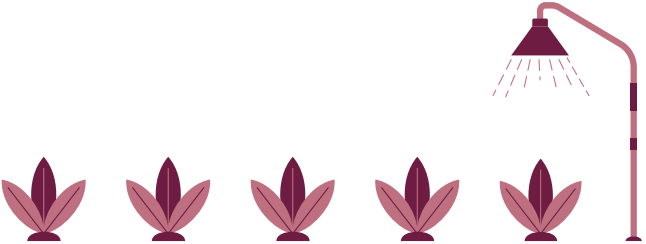
Among the key bills still awaiting approval is the Customs Ordinance Amendment Bill (Prohibition on the Destruction of Goods Under Customs), 2023. This bill aims to prevent the destruction of edible food that has been confiscated or is subject to customs, and instead redirect it to welfare authorities and nonprofit organizations for distribution to those in need. If adopted, this legislation would establish an important mechanism for salvaging consumable goods that are currently discarded due to legal and regulatory barriers.

Another proposal is the Income Tax Ordinance Amendment Bill (Tax Credit for Food Donations), 2023, which seeks to grant tax credits to businesses that donate food instead of destroying it. Implementing such an incentive mechanism would encourage commercial entities, importers, and food producers to increase the volume of food donations, while reducing the high financial losses caused by food waste each year.

These legislative initiatives represent a first step toward regulating the field; however, a broader regulatory policy is needed. Such a policy should include additional economic incentives, oversight of surplus food management, and accessible mechanisms to make it easier for businesses to donate food to appropriate recipients, as recommended in the National Plan. A combination of legislation and clear regulation is crucial to making food waste reduction a binding norm and building the infrastructure needed to manage Israel's food resources efficiently.

**4. ADDITIONAL RECOMMENDATIONS**

- Adopt innovation and artificial intelligence in food rescue operations - Promote the use of advanced technologies and AI across the entire food rescue chain - from farmers to consumers - to enhance surplus forecasting, optimize logistics and distribution, and improve overall system efficiency in reducing food loss and waste.
- Engage the younger generation - Working with younger populations is one of the most effective ways to shape long-term consumption habits and reduce food waste. The importance of consistent, early-age education underscores the central role of the Ministry of Education and the need to integrate food waste prevention into the national school curriculum.





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