# How Much Food Can Be Rescued?

**NIS 7.5 billion worth of food is rescuable**

Approximately 40% of food produced in Israel is lost or wasted during the production, distribution, and consumption stages, totaling at approximately 2.6 million tons annually. The direct cost of food waste in Israel is NIS 21.4 billion, which constitutes 1.4% of the GNP. When taking into account the cost of greenhouse gas and air pollutant emissions resulting from food waste, the total cost of food waste amounts to approximately NIS 23.5 billion. Of this, about 50% is rescuable food fit for human consumption.

In terms of food rescue, the central component is unconsumed edible food (fit for consumption with nutritional value and health benefits). There are various reasons why waste occurs in each value stage of the production chain. The common denominator is the lack of economic viability for food producers (farmers, manufacturers, retailers, etc.) to invest additional resources in the next stages of production and distribution.

Reducing food waste, whether by preventing waste production or rescuing surpluses, is a top global priority. The estimated amount of rescuable food is derived from a value chain model designed specifically for the food industry. Every type of wasted food at each stage of the value chain was analyzed and classified as rescuable or un-rescuable (unfit for consumption).

It is important to note that when food is classified as rescuable this does not take into account the economic viability of rescuing the food, but refers to the safety of its consumption and the technical capability to use the wasted food to feed people.

*The value of rescuable food is approximately NIS 7.5 billion, with wasted food increasing in value as it progresses through each stage of the value chain and more resources are invested in raising, producing, packaging, and transporting it. The table below demonstrates that most of the wasted value is concentrated in the retail and distribution sector, as the food wasted in this sector is ready to be sold and consumed but goes to waste before it reaches the end consumer.*

**The Value of Rescuable Food Along the Value Chain**

**in Millions of NIS**

|  |  |
| --- | --- |
|  | **Value of Rescuable Food Waste** |
| Agriculture  | 1,700 |
| Sorting & Packaging | 430 |
| Industry | 240 |
| Retail & Distribution | 3,970 |
| Institutional | 1,100 |
| **Total** | **7,440** |

According to estimates, under economically viable conditions and given the appropriate resources, roughly 50% of food waste is rescuable and can be used to feed needy populations suffering from food insecurity. Furthermore, rescuing 50% of the food currently being wasted would save the Israeli economy approximately 200 million cubic meters of water, the production of over 600 million kWh, 38 thousand tons of fuel, and the use of significant land resources.

**Estimated Rescuable Food in Israel**

Throughout the Value Chain, in Thousands of Tons

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Total Consumption** | **Total Local Production** | **Waste** | **Rescuable Waste** | **Waste Rate** |
| Fruit | 1,315 | 1,422 | 523 | 173 | 37% |
| Vegetables | 1,661 | 1,932 | 984 | 641 | 51% |
| Potatoes & Starches | 320 | 667 | 239 | 169 | 36% |
| Grains & Legumes\* | 1,466 | 372 | 393 | 80 | 27% |
| Meat, Fish & Eggs | 791 | 773 | 205 | 69 | 27% |
| Milk & Dairy | 1,700 | 1,686 | 225 | 65 | 13% |
| Total | **7,253** | **6,851** | **2,569** | **1,199** | **37%** |

\* Grains & legumes waste was calculated based on consumption as most grains are not produced in Israel.

Source: BDO estimates

In the current report, household food waste is not classified as rescuable. There are various approaches to the issue of food waste in household consumption. Western culture

is based on consumerism and overabundance and it seems consumers derive benefit and joy not only from consuming food, but also from having a variety of available options, even to the point of excess.

However, because food production entails the use of natural resources, it has an environmental impact, these external costs – in an economic sense – are not reflected in the price consumers pay for food.

Therefore, there is justification for taking action to encourage the reduction of food waste. This could be done for example, through government-sponsored campaigns, as has been implemented in several Western countries, in order to raise public awareness regarding the external impact of producing food that is left unconsumed, including wasting the consumers’ financial resources and damaging the environment.

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| --- | --- |
| Rescuable Food | Food Waste Unfit for Human Consumption |
| * Pre-harvested edible agricultural produce
 |  |
| * Aesthetically flawed agricultural produce
 | * Diseased food
 |
| * Unsold agricultural produce in wholesale markets
 | * Weather-damaged inedible food
 |
| * Unsold food in supermarkets chains and stores
 | * Spoiled food
 |
| * Prepared food surpluses from the catering industry, institutional kitchens & restaurants
 | * Byproducts of the production process (peels, seeds, skin, fat)
 |
| * Packaged food with damaged packaging or misshaped food
 | * Uneaten food on plates
 |
| * Unsold food nearing its sell-by date
 |  |