

Our Food Waste Prevention Practices

GRI 103-1, 103-2, 103-3, 306

We are aware of the significance of preservation of our finite resources for a livable world. Accordingly, we are carrying out our activities to ensure the effective use of food and water, the most notable two core resources, and prevent the waste thereof.

According to the report, drawn up by the Food and Agriculture Organization of the United Nations (FAO), one third of food is not consumed for the intended use but becomes wasted. In this context, we believe that the food retail sector can provide a great contribution in prevention of the food loss and food waste. **Sustainable Development Goals 12.3** is focused particularly on this topic. As a member of the Consumer Goods Forum (CGF), we are committed to reduce our food waste percentages accordingly and set our target by 2030. Reduction of food loss reduces the use of water and fertilizers, and prevent loss of soil, and thus, reduce the greenhouse gas emissions.

In order to reduce food loss and waste and ensure re-utilization of any food that can be consumed, we realize various **projects in line with the food recovery hierarchy** by accelerating our measurement, categorization, analysis and improvement activities. We are firmly moving towards our goals with projects, listed herein below and whose capacity we plan to gradually increase.

The projects we carry out to reduce food waste are as follows:

- Operational improvements
- Delivering the food to the individuals in need
- Raising the awareness of the consumers
- Donating food for feeding the animals
- Extending the product shelf life by employing technological methods
- Generating energy from organic waste
- Reducing food waste of our suppliers

Our Performance and Target

The ratio of our food waste tonnage to our food sales tonnage was 5.36 in the base year of 2018. We aimed to reduce this rate by 11 percent for 2019, and our performance was 17 percent, and our food waste ratio decreased to 4.43. We aim to reduce the same rate by 1 percent in 2020 compared to 2019.



50%

We target to halve the ratio of our food waste tonnage to our food sales tonnage by 2030 compared to 2018.



OPERATIONAL IMPROVEMENTS AND DISCOUNTED SALES

In line with our objective to reduce any loss at source, we continue our practices to reduce the food waste resulting from food spoilage. For many years, we have been offering 25-50 percent discounted sales for prevention of waste of the fresh food products such as meat, chicken, dairy products with an upcoming Expiry Date. We have conducted researches for moving beyond such practice. In consequence of the surveys we have conducted, we observed that a portion of 80 percent of our food waste consisted of the vegetables & fruits. Accordingly, we conducted ad hoc activities for such perishable product group.

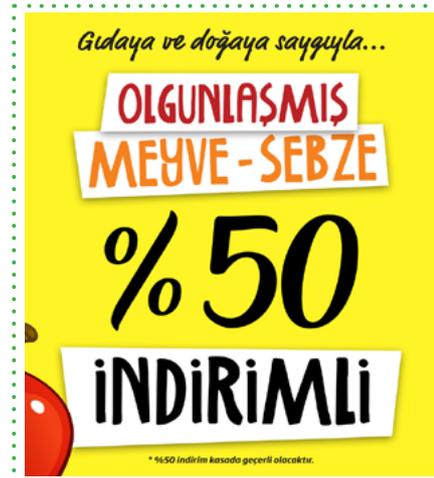


We are placing our orders for the fruits & vegetables in our stores automatically by making use of artificial intelligence, and thus, we prevent the loss of food, resulting from overstocking. We saved 5,000 tons of food by applying the upcoming Expiry Date and ripe fruit and vegetable discounts

In 2018, we commissioned the automated ordering system for fruits & vegetables for the purpose of preventing the losses that result from overstocking. We started to place the orders for fruits & vegetables on automated basis as based upon the previous orders, stockpiling and sales by making use of the machine learning algorithm. **We accomplished to reduce our fruit and vegetable waste by 3.1 points at 114 of our stores** where we tried such system the first. We filed a patent application for such system, which has been developed entirely by making use of our internal resources, and we generalized

such system at all of our stores. Having guaranteed the accurate ordering and stockpiling by means of such system, we proceeded to the second phase for reducing our food waste which still remain to arise.

We started to **employ the practice of 25 - 50 percent discounted sales**, we have been applying for many years for the purpose of **accelerating the sales of the fresh food products such as meat, chicken, dairy products with an upcoming Expiry Date**, also for the sales of ripe fruits & vegetables. In 2019, we avoided waste of 5,000 tons of fruits & vegetables and meat products, and we **saved the food up to the annual turnover of 12 MigrosJet stores** by applying the discounts for the upcoming Expiry Date as well as ripe fruits & vegetables.



OUR RESPECTING FOOD PROJECT

We provide the individuals in need with the food products, which do not satisfy the sales standards in visual terms, but which remain nutritious and **are convenient for consumption, through a web-based donation platform**. Thanks to this new generation practice, we have materialized in 2017 in cooperation with Fazla Gıda (Whole Surplus) for the first time in Turkey, **the food products that can be donated are matched with the requests of the individuals in need at the same platform**. Thus, such donated food becomes utilized 100 percent since they are delivered to the right individuals at the right quantities. By means of the system, in which the fruits & vegetables and dry legume products are involved, **the products can be delivered to the food banks and social markets on daily basis**. By donating 1,424 tons in 2019, we provided support for delivering more than 4 million meals to the individuals in need as of the beginning of the project. We aim to popularize our project at our stores throughout the country.

We supported more than 4 million meal deliveries to those in need.

FOOD LOSS AND LABEL READING RESEARCH

In addition to the practices and projects, we have developed for the purpose of reducing food waste, we are focusing on understanding the current situation and raise the awareness of the consumers by providing contribution to the research and activities conducted for such purpose. Under the leadership of our company and upon the contributions of the leading companies in the retail and fast-moving consumer goods industry, a research has been conducted by the Turkish Food Safety Association (GGD) for the purpose of determining the consumer perceptions and behaviors that give rise to loss of food. In consequence of a



research, conducted through the agency of the Nielsen Research Company, it was determined that the food with an expired Best Before Date (BBD) but convenient for consumption, was junked by 72 percent of the consumers since they were not actually familiar with the difference between the Best Before Date and the Expiry Date. **Expiry Date is used for fresh food product which would be unhealthy to be consumed after this date.** If no problem is determined upon checking the taste, smell and appearance, **consumption of any food with an expired Best Before Date will not pose any risk in terms of health.** Following such research, we participated in the workshop, held by the Ministry of Agriculture and Forestry in 2019, and we submitted our proposals and opinions with respect to the subject matter. In 2020, the guidance for the Regulation on Turkish Food Codex Labeling and Awareness-Raising for the Consumers has been revised, and it was incorporated into such Regulation that “the products with an expired Best Before Date could be consumed”. Further, it was indicated that the food with an expired Best Before Date could be offered for sale to the extent that the convenience for human consumption will be under the control of the food establishments. Accordingly, we are planning to hold

trainings and communication activities at our stores in 2020 for the purpose of raising the awareness of the consumers and preventing undue Food Waste.

OUR 'FRESH LEFTOVERS TO OUR FOUR-LEGGED FRIENDS' PROJECT

In order to feed the stray and forest animals, we have been carrying out the “Fresh Leftovers to Our Four-Legged Friends” project since 2014. **Food products in our stores**, that have an upcoming Expiry Date but which still remain **convenient for consumption**, are being **donated for feeding the stray animals and forest animals** through the agency of the HAYTAP (Turkish Animal Rights Federation). A support of 873 tons of food has been provided in 2019 as part of the project. We have provided contribution to feeding the suffering animals by means of the food aid of 1,896 tons, in total, up until the present.

We have **placed special-design animal food containers in front of the Migros and Macrocenter stores** for the purpose of feeding the stray animals around the stores at a clean and healthy environment. We are allocating such animal food containers for our stores in line with the requests received from our

stores that are located at the areas where there are many stray animals. Such stores of us are acting attentively to freshen the cat and dog food available at the food areas in front of their doors, on regular basis.

We donated 1,896 tons of food to feed the stray and forest animals in 2019



EXTENDING THE PRODUCT LIFE OF RED MEAT

At MIGET, we are carrying out activities for turning each point of our products into a value and minimizing the loss and extending the shelf life thanks to our innovative production line and expert butcher staff. **We extended the shelf life of the meat products approximately by 30 percent by making use of the MAP (Modified Atmosphere Packaging) technique, optimum stockpiling and robust cold chain.** This year, we started to make use of the cutting-edge packaging technology. **The Skin packaging technology**, which covers the food products just like the skin thanks to its flexible upper film, **draws out the air completely during the vacuum pumping, and protects the product against the environmental effects.** Thus, we manage to enhance the shelf life to double. As of the end of 2019, we switched to the "Zero Inventory" practice for the calf carcass being used as the raw material for the production. The sales life of the product at the store was extended by 40 percent since the shelf life has been prolonged. We will continue with our investments together with the rapid development of such technology in the upcoming years.

We reduced loss of food by 50% by extending the life of our red meat products by 30% by making use of the MAP packaging, and by 200% by making use of the skin packaging

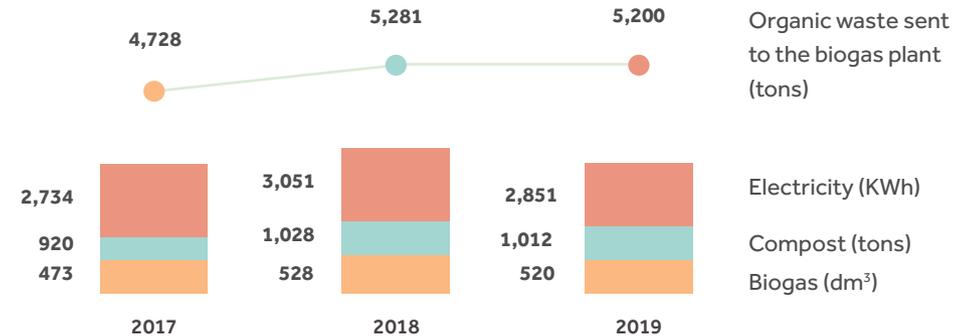


OUR ENERGY GENERATION PRACTICES FROM ORGANIC WASTE

We use our store's organic waste that is not convenient for consumption, in energy recovery and composting or we send it to the municipal waste disposal centers. The food waste at our vegetable & fruit warehouse in Bursa, and also at our Distribution Centers in Bursa, Gebze, Esenyurt and Bayrampasa are sent to the **biogas plants** upon being sorted at the source. In 2019, we sent **5,200 tons of organic waste** from our 687 stores to the biogas plant that produced 520 cubic decameters of biogas which resulted in 2,851 tons of compost and generation of 1,012 kWh electricity.

Additionally, we launched the pilot project, "**Black Soldier Fly (BSF)**", at Incek, Ankara store in 2019. BSF fly larvae utilize the fruit & vegetable waste as the nutritional source, and they can consume waste with the twice of their own body weights a day. **The vegetable & fruit products of our stores are received free of charge by Germina Plant to feed the BSF flies. Upon the degradation of organic waste biologically, the BSF larvae are used as chicken and fish feed** owing to the high protein and oil ratio. Thanks to our circular economy practices, in 2019 we utilized 3 tons of fruit & vegetable waste through this process.

Energy Generation from Organic Waste



REDUCING FOOD WASTE OF OUR SUPPLIERS

We, as Migros, maintain to combat not only for the food waste originating from own operations. In addition to that, we make efforts for enabling our suppliers to reduce their own food waste. In line with such purpose, we participated in the 10x20x30 project that is being carried out globally by the World Resources Initiative (WRI). As part of the project, for the purpose of supporting the target to reduce the food waste, as given in Sustainable Development Goals (SDG) 12.3, **10 retailers will provide support for the performance of the activities for measuring and reducing the food waste ratios of such companies by engaging 20 supplier companies into their activities for the purpose of contributing to the target for 2030.** Migros is among the 10 retailers that have adopted such activity, which has been launched in the international arena, and participated in the said project voluntarily with 20 of its suppliers. For the purpose of enabling them to reduce their food waste, such suppliers of us will be provided with information about the activities carried out on global basis, and trainings will be held, and the use of the Global Food Loss and Waste Prevention Protocol will be ensured for being able to

perform the measurements on the basis of tons, until the end of 2020. Besides, we will provide guidance to such suppliers for the purpose of recording the food waste of such suppliers as part of the ATLAS program to be created by the WRI.

We are working for reducing the food waste by 50% through 10x20x30 Project with our 20 volunteered suppliers until 2030.

