

**GIDA İSRAFINI DURDURALIM**

**(LET’S STOP FOOD WASTING)**

**1.PREFACE**

 The decrease in the nutritional value and amount in the edible part of the food produced for human consumption is defined as loss and waste (FAO). At all stages of the food chain from production to consumption, whatever the reason is, waste can be defined as food loss and waste.

**2.** **OVERVIEW OF FOOD WASTE**

 Food losses and wastage ranks first among global problems, along with hunger and malnutrition. Food losses and waste; It causes high levels of economic damage to producers, consumers and all actors in the food chain. As a result, it causes economic loss of the country and negative effects on the environment.

 According to the 2019 report of FAO, approximately 821 million people experienced hunger problems in 2018. According to the Global Hunger Index, 52 out of 119 countries have "serious", "worrying" and "extremely serious" hunger problems. For the nutritional needs of the world population, which is expected to reach 10 billion by 2050, global food production must increase by 50%. (FAO, 2013). The amount of food produced per year for human consumption in developed countries is 900 kg. In developing countries, this rate is about 460 kg (Artık & Hancı, 2020, s.11)

 Approximately 30% of the 4 billion tons of food produced for human consumption in the world (1.3 billion tons of food-approximately 190 kg per person) is either lost or wasted. (FAO, 2011a). More than 40% of food losses in industrialized countries occur at the retail and consumer level. In developing countries, 40% of losses occur after harvest and during processing. While 56% of food loss and waste occurs in developed countries, the remaining 44% is in developing countries..( Demirbaş, 2018)

 70% of food waste in the EU occurs in the household, food service and retail sectors. Food loss in agricultural production and processing sectors constitutes the remaining 30% (FUSIONS, 2018). With the sustainable development goals adopted in September 2015, EU countries are committed to halving per capita food waste at the retail and consumer level by 2030 and reducing food losses along the food supply chain.

 According to a global study by FAO (2011), fruits and vegetables constitute the majority of household waste with 39%, followed by cereals with 33%.

**3-** **FOOD WASTE IN OUR COUNTRY**

 A study conducted by the United Nations Environment Program points out that more food is wasted each year from 7.7 million tons in Turkey. According to the UN Food Waste Report 2021 Index of 93 kg of food per person are thrown away every year in Turkey. Turkey is among the countries that are most wasted food. The most loss is in fruits and vegetables with 53%. Turkey Waste Prevention Foundation (according to TİSVA) report prepared in 2019, a year in our country produced 49 million tons of fruit and vegetables are lost 25-40%. 6 million loaves of bread are wasted in a day. According to the researches carried out by TÜBİTAK, the amount of wasted fruit and vegetables is 12 million tons and 25 billion Turkish LirasThis amount is more than four times the case of Turkey's total exports of fruits and vegetables.

**4-REASONS**

 Food waste is mainly due to the food system's decision to scrapped or discard usable food at the distribution, service sector and household level. In general, the areas where food loss and waste occur are as follows.:

**BULK CONSUMPTION AND**

**IN THE HOUSES**

**RETAIL SALE**

**PROCESSING AND PACKAGING**

**SHIPPING**

**STORAGE**

**DISTRIBUTION**

**PRE-HARVEST**

**HARVEST**

**AFTER HARVEST**

 **Food loss and waste framework**

**Reasons of food waste in retail phase:**

• Conditions at the presentation stage (temperature, humidity, lighting, ventilation, etc.), applications in areas such as loading or transportation, product quality, shelf life

• Lack of production planning in mass consumption places such as cafeterias and restaurants

• Inadequate stock management, unfavorable hygiene conditions, inadequate or absent personnel training, lack of alternative portions and open buffet applications

• Treats offered without asking the consumer

• Consumers harming by touching when choosing fresh fruits and vegetables.

• Failure to sell products with approaching the Recommended Consumption Date (TETT).

**Causes of consumer-level food waste**

• Getting more food than needed

• unplanned shopping

• Throwing food that does not exceed the recommended consumption date

• Purchases without considering the shelf life of the products

• Unsuitable storage conditions and poor stock management at home

• Preparing more meals than needed and not eating them

• Losses in food quality and quantity due to improper preparation techniques

• Inability to utilize leftover foods

• Failure to make the right food consumption plan at home.

 5.4% of consumers throw away the remaining food, according to a study by the trade ministry, It is stated that 23% of the purchased food is thrown away without consumption. According to the same study, the rate of those who go shopping by making a list is 31%. Unplanned and excessive shopping can cause the food purchased to spoil. According to another study, households mostly throw away fruits and vegetables (42%), then milk and dairy products (41%) (Nielsen, 2019).

**5-** **FOOD WASTE RESULTS**

Food loss and waste;

* It causes depletion of natural resources such as water and soil.
* It causes energy losses, more labor consumption, capital losses.
* It causes an increase in greenhouse gas emissions.
* Causes global warming and climate change.

**6-** **FOOD WASTE PREVENTION ACTIVITIES**

 One of the five main themes of the "Zero Hunger" campaign of the United Nations has been determined as reducing food waste to zero. At the 2010 Agriculture Ministers meeting, a request was made from the OECD for measures to reduce food waste, and the reduction of food waste was defined in the OECD's "Green Growth Strategy" in 2011 (Bagherzadeh, et al. 2014). In addition, it was considered that it would be beneficial to define a common conceptual measurement framework that they can use to measure food waste and losses consistently. (http://g20.org.tr/g20)

 UN and FAO have formed a food waste reduction coalition and 30 countries have joined this coalition. The coalition aimed to reduce waste by 50% by 2030 (www.fao.org/save-food). In the "Milan Protocol" put forward by the Barilla Food and Nutrition Center and signed at Milan Expo 2015, it is aimed to reduce food waste by 50% until 2020. (Barilla Center, 2016).

 With the “National War on Food Waste Agreement” made for stakeholders in the entire food chain from farm to fork in France, it is aimed to reduce food waste by half until 2025. (http://www.frenchfoodntheus.org). For legal regulations on food waste in the EU, in January 2012, the European Parliament decided to take measures to reduce food waste by half in 2025, and the year 2014 was declared the "European Action Year Against Food Waste".(EU, 2014 b)

 In Austria, the "waste management plan" was announced in 2011. (Lebersorger and Schneder, 2011)

 Since the work of any single organization would not be sufficient to solve the scale and complexity of the food loss problem in the world, it was felt that cooperation between all actors and legal entities was required. As a result of this thought, "SAVE FOOD" initiative was initiated. SAVE FOOD aims to create a network between stakeholders in industry, policy, research and civil society by promoting dialogue and helping to develop solutions along the food chain. (FAO, 2018)

The global initiative has concentrated on four main issues:

1. Increasing the awareness of the effects of food loss and waste and developing solutions to the problems related to this issue.

2. Collaborative and coordinated work of initiatives to reduce food loss and waste around the world.

3. Policy, strategy and program development.

4. Support for private and public sector investment programs and projects. This support is structured as technical and administrative support for actors and organizations in the food chain, as well as capacity building (training) initiatives.

Food banking studies;

Food Bank; They are organizations formed by associations, foundations or municipalities that store donated or surplus food (provided that it is healthy) under appropriate conditions and deliver these products directly or through various aid organizations, without profit, to people on the border of hunger and those affected by natural disasters. Food banking activities, initiated by John Van Hengel in Arizona Phoneix in the 1960s, have now spread all over the world.

 Food banking is successfully implemented in European countries. Following the first food bank established in Paris, the European Food Banks Association was established in 1986. The main founders of the union are France, Spain and Italy. Food banks established in Europe provide most of the food through donations to be delivered to the needy throughout Europe. In addition, resources obtained from various funds are used for this purpose. Thus, to food banks formed by foundations and associations; Donations were encouraged to prevent hunger by using resources effectively and efficiently without wasting food.

**7-** **WORKS IN OUR COUNTRY**

 Although it does not directly target food waste in our country, reducing waste is among the priority areas in the 10th Development Plan. first in 2013 for the food waste in Turkey "Bread Not Waste" campaign was launched. Many local governments made exemplary implementations with the campaign. According to the results of the research conducted in 2013 in order to observe the impact of the campaign activities on the society and to determine the waste tendency, it was seen that there was an 18% reduction in bread waste and an annual saving of 300 million TL.

 Within the Research and Development Supports of the Ministry of Agriculture in 2016, “Solution proposals for determining and preventing food waste / losses in every link of the chain from production to consumption (transportation, processing, storage, etc.) were among the priority issues. Again, with the cooperation of the ministry and relevant producer organizations, a campaign for citrus fruits was carried out with public service announcements.

 The Eleventh Development Plan covering the years 2019-2023, prepared by the Presidency Strategy and Budget Directorate, included the following objectives:

1- Article 411 states "Efficient stock management to ensure food safety, reduction of losses in the supply chain, prevention of waste, and development of rules and capacities for the regulation of markets will be provided."

2- 411.3. "Consumer awareness will be increased to prevent food loss and waste."

 Our Ministry has taken the issue of reducing food losses and waste on a sustainable basis on its agenda in recent years, and has conducted many studies on a national and global scale. In line with these developments, our country is aware that the issue of reducing food losses and waste is not only a national but also an international issue; With the cooperation of UN and FAO, it launched a national campaign called “**PROTECT FOOD**” to reduce food losses and waste.

 Another activity aimed at reducing food losses is the food banking system, which is also widely used globally. Food banking was established by associations in our country in the early 2000s. Current legislation supports food banking. The number of food banks has increased in our country through non-profit foundations, associations and municipalities for social purposes.

**8-RESULT**

 Food waste and loss, which is a global problem, is also a national and regional problem. Official institutions, local governments, NGOs, educational institutions, food businesses and consumers; are the stakeholders in the solution focus.

 Konya Directorate of Agriculture and Forestry; It is the official authority in the provision of reliable food supply from field to fork, which carries out training, support, control and inspection activities in the food, agriculture and livestock areas in its region.

 In addition to its duties, it is planned to make an EU Erasmus + KA2 strategic partnership project in order to reduce food waste and losses in our region, as required by its social responsibility. We invite you to be partners in the project that is planned to be carried out under the leadership of our institution.

 With the planned project;

1-To reduce food waste in food outlets (markets) and mass consumption places (restaurants, cafeterias) in the food supply chain,

2- Distribution of donated and non-expired healthy foods to the needy through food banking

3- To ensure that those unfit for human consumption are used as animal feed,

4- To raise awareness of food waste among consumers,

 is intended.

 Thanks to the strategic partnerships to be established, the causes and solutions of the current problem will be determined. We firmly believe that the food waste and losses in our region and in your region will decrease with the realization of the planned activities.

Thank you for your interest in the project. I will contact you in the coming days.

Best regards.

Salih ÖZER

**KONYA AGRICULTURE AND FOREST MANAGEMENT**

Web: <https://konya.tarimorman.gov.tr>

E-mail: salih.ozer@tarimorman.gov.tr