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Save Food. Waste less.  
Τέρμα στη σπατάλη τροφίμων!

Awareness-raising campaign to prevent and manage food waste among consumers, the food and hospitality industries

Brief report - March 2021



LIFE19 GIE/CY/001166

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Globally, roughly a third of all food produced for human consumption is lost or wasted- approximately 1.9 billion tons. Food losses and waste amounts to roughly US\$ 680 billion in industrialized countries and US\$ 310 billion in developing countries in economic losses, while social and environmental losses amount to US\$ 900 billion and US\$ 700 billion respectively (<https://stopwastingfoodmovement.org/food-waste/food-waste-facts/>).

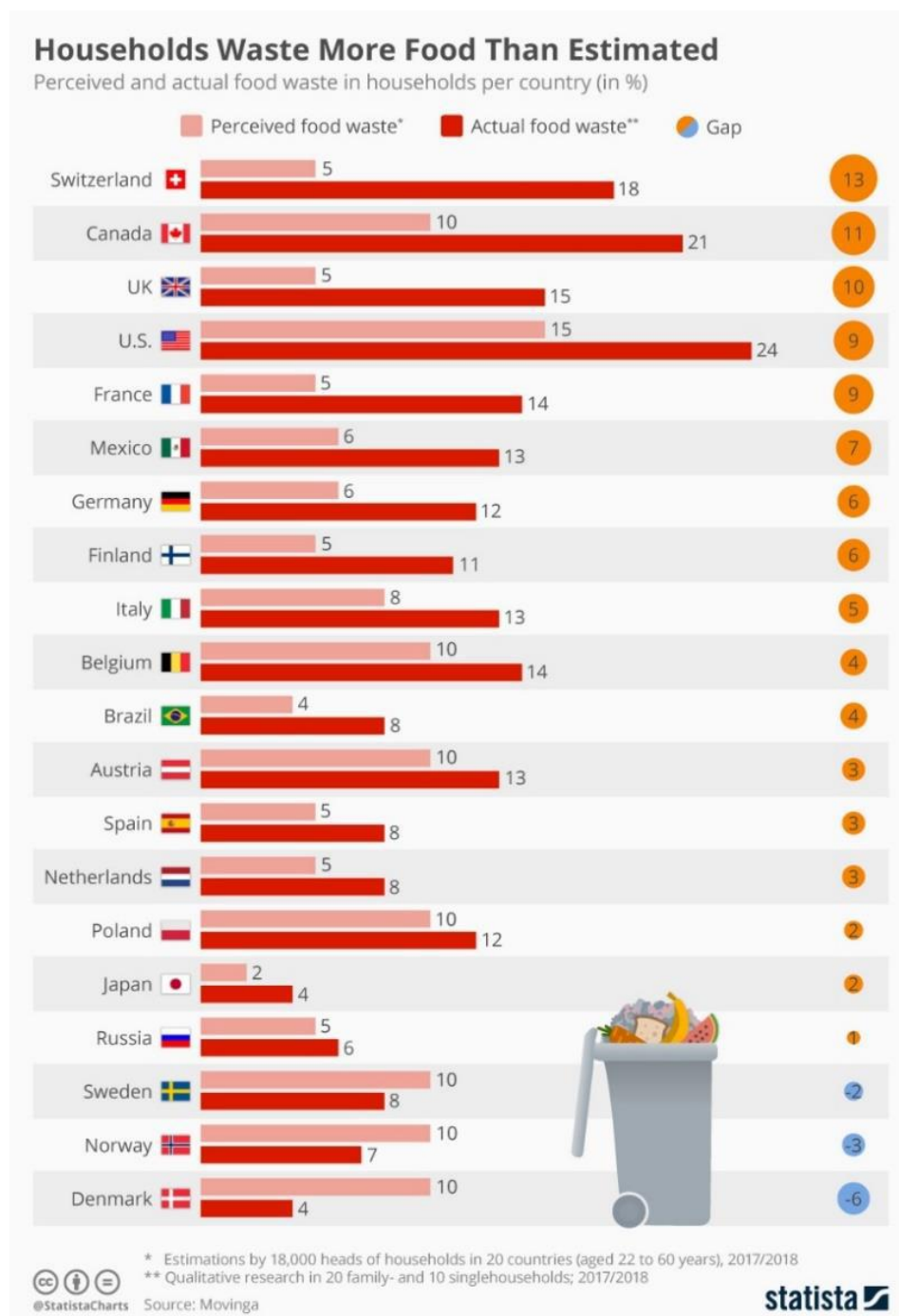
There is also the ethical aspect: FAO reports that about 793 million people in the world are malnourished. According to Eurostat, 55 million people (9.6% of the EU's population), were unable to afford a quality meal every second day in 2014 ([www.fao.org](http://www.fao.org)).



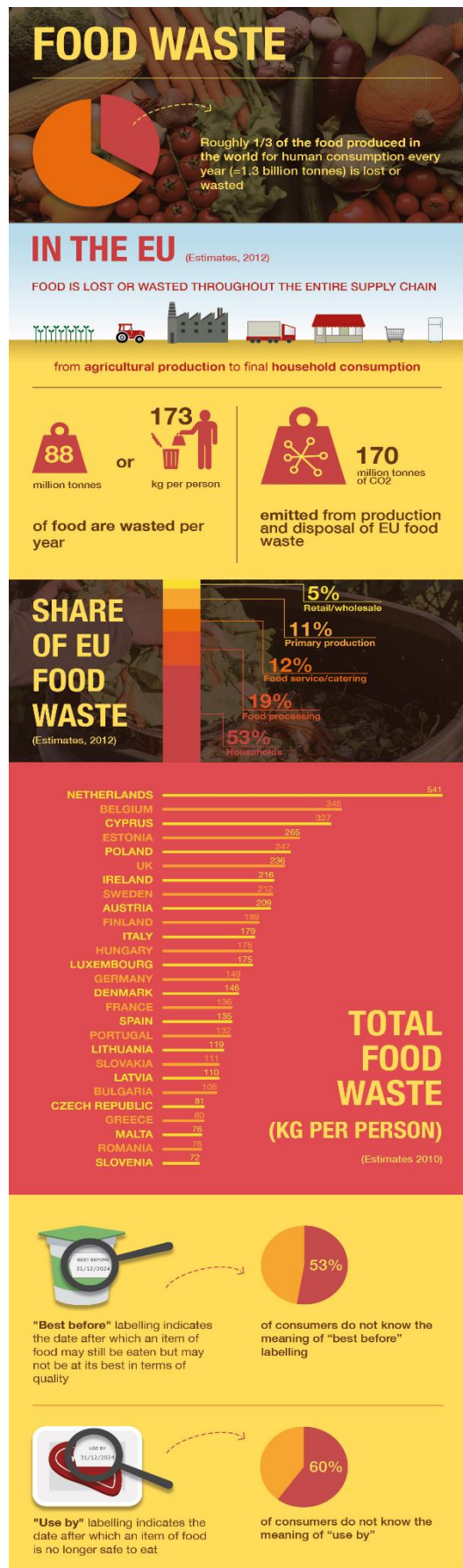
Food waste does not only mean that valuable and often scarce resources such as water, soil, and energy are being lost, it also contributes to climate change. According to the UN's Food and Agricultural Organization (FAO), food waste has a global carbon footprint of about 8% of all global greenhouse gas emissions caused by humans. For every kilo of food produced, 4.5 kilos of CO<sub>2</sub> are released into the atmosphere ([www.fao.org](http://www.fao.org)).



International research reveals that the food waste problem is underestimated by the consumers. Globally, people perceive that the food waste problem is smaller than it actually is. Figure below is indicative of this fallacy at the level of the households. Besides the Scandinavians, in most of the other countries surveyed (and especially the more affluent countries) there is a significant lack of appreciation of the scale of the problem by the public.



<https://www.statista.com>



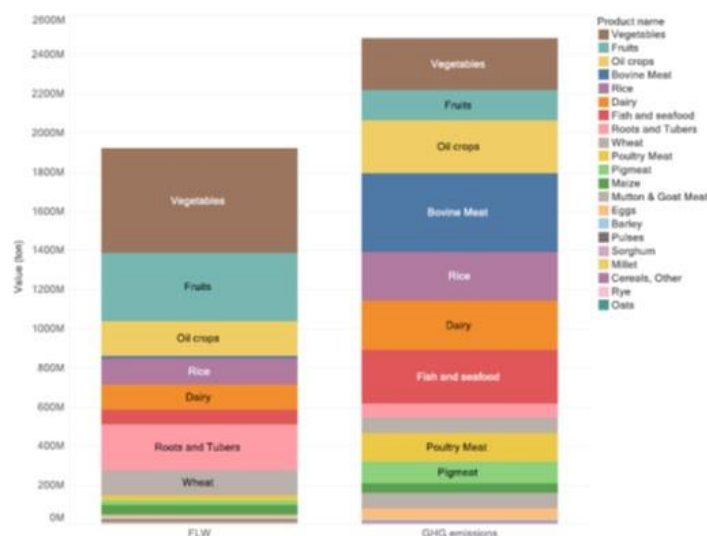
The per capita production of food waste widely differs between member states. Cyprus is among the top food waste producers in the EU. To a certain extent, this is attributed to the touristic nature of the country. Cyprus used to accept (prior to the pandemic), close to 4 million tourists per year, a very high number compared to the 850,000 of the local population. These tourists have a definite impact on the total food waste production; hence the calculation of the per capita production is inflated.

Food is lost and wasted along the whole supply chain from farms to processing and manufacturing to shops, restaurants and at home. However, most of the food in the EU is wasted by households with 53% and processing with 19%.

The EU and its Member States are committed to meeting Sustainable Development Goal (SDG) 12.3 to halve per capita food waste at the retail and consumer level by 2030 and reduce food losses along the food production and supply chains.

Wasting food is not only an ethical and economic issue but it also depletes the environment of limited natural resources. By reducing food losses and waste, we help achieve Sustainable Development Goals

According a very recent study on hotspots for food waste production (A Worldwide Hotspot Analysis on Food Loss and Waste, Associated Greenhouse Gas Emissions, and Protein Losses, Xuezheng et al, Sept. 2020), vegetables and fruits contributed the most to food loss and waste, accounting for almost half of the total food loss and waste. Bovine meat was not a hotspot at all with respect to FLW (only for 0.7% of the total FLW), but it was the largest hotspot for the FLW-associated GHG emissions and contributed as much as vegetables and fruits combined (16.3%).



Global hotspots for FLW and associated GHG emissions in 2017.

Xuezheng et al., A Worldwide Hotspot Analysis on Food Loss and Waste, Associated Greenhouse Gas

In general, primary production and consumer stages yielded slightly higher food loss and waste and associated GHG emissions than the storage and handling and food distribution stages. The processing stage generated much lower FLW and associated GHG emissions compared to other stages. Specific to food items, it shows that bovine meat was responsible for the highest FLW-associated GHG emissions in the consumer stage.



Global hotspots for FLW and associated GHG emissions by chain stage in 2017.

Xuezheng et al., A Worldwide Hotspot Analysis on Food Loss and Waste, Associated Greenhouse Gas



## Circular Economy Package

In addition to existing Directives and Regulations, the European Union has been working hard to promote a sustainable agenda. The two most important recent policy initiatives towards that direction, have been:

- The Circular Economy Package in 2018, with an aim to boost competitiveness, create jobs and generate sustainable growth
- The EU Green Deal in 2019, a green and inclusive transition to help improve people's well-being and secure a healthy planet for generations to come

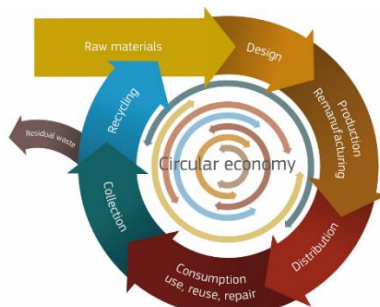
According to the Commission, it has adopted an ambitious Circular Economy Package (CEP) to help European businesses and consumers to make the transition to a stronger and more circular economy where resources are used in a more sustainable way. The proposed actions will contribute to "closing the loop" of product lifecycles through greater recycling and re-use and bring benefits for both the environment and the economy. The prevailing philosophy behind this initiative, is the need to ensure better resource efficiency and derive maximum value from the resources we utilise through repeated cycle lives.

The CEP, aims to drive the EU economy from a linear model:



Linear Economy Package – EU (<https://ec.europa.eu/environment/circular-economy/>)

To a circular model:



Circular Economy Package – EU (<https://ec.europa.eu/environment/circular-economy/>)

## The European Green Deal

The EU Green Deal, released by the Commission in December 2019, resets the Commission's commitment to tackling climate and environmental-related challenges that is this generation's defining task. The atmosphere is warming, and the climate is changing with each passing year. One million of the eight million species on the planet are at risk of being lost. Forests and oceans are being polluted and destroyed.

The European Green Deal is a response to these challenges. It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.

It also aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts.

To deliver the European Green Deal, there is a need to rethink policies for clean energy supply across the economy, industry, production and consumption, large-scale infrastructure, transport, food and agriculture and other. For food and agriculture, the Green Deal proposes the strategy from 'Farm to Fork'.



### **From 'Farm to Fork': designing a fair, healthy and environmentally-friendly food system**

*Farm to Fork- EU ([https://ec.europa.eu/food/farm2fork\\_en](https://ec.europa.eu/food/farm2fork_en))*

The Farm to Fork Strategy is at the heart of the European Green Deal aiming to make food systems fair, healthy and environmentally friendly.

### **Food Waste in Cyprus**

The Cypriot production of household waste per capita is among the highest in Europe. According to the Statistical Service of the Republic of Cyprus in 2018 the waste generation reached 640 kg per capita, placing Cyprus third only to Denmark and Malta. Overall European Union averages to 482 kg per capita, a third of which (i.e. 88 million tons) is Food Waste. This also means that one third of food produced for human consumption in the world is lost or wasted, while one out of nine people globally is undernourished.



Based on the available data and considering that 60% of biodegradable waste is estimated to be food waste, we can estimate that in 2017 about 155,000 tonnes of food waste was generated in Cyprus, representing 28,2% of total municipal solid waste generated for the same year.



Consequently, almost one third of the infrastructure and operational cost for waste management in Cyprus, is expensed to deal with food waste. Wasting food is not only an ethical and economic issue but also depletes the environment of limited natural resources. In Cyprus, it is estimated that the solid waste in general contributes around 14% of the Cyprus GHG emissions (National Plan for Energy & Climate 2021-2030).



Therefore, minimizing food waste will have an important positive impact on GHG emissions.

### Public Opinion Surveys - Cyprus

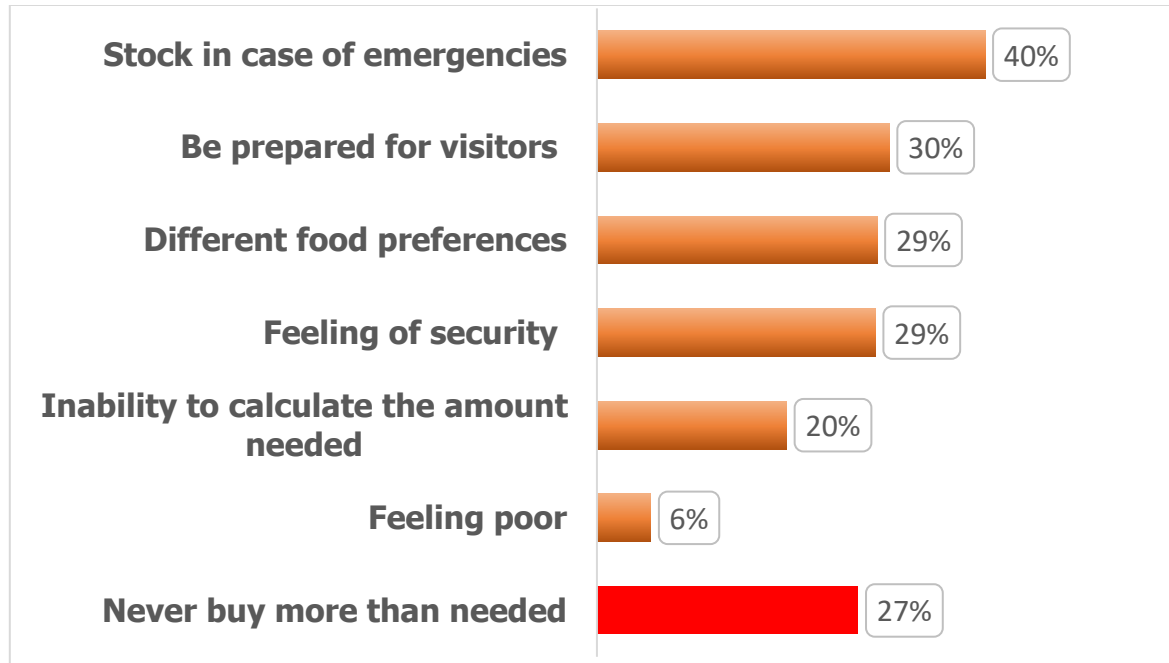
Three quantitative surveys were conducted during the period October 2020 to January 2021. The main survey covered 554 people aged 18 and over, who are either responsible for household shopping or food preparation run in the period 21 – 23 October 2020. The geographical distribution of the sample was proportional to the actual distribution of the population. The data was not weighted during processing. The second, was a shorter online questionnaire via the Dias group websites with a larger sample (total 1828 participants, out of which 1104 with complete answers) and participation from other countries (Greece, UK, other) between 05/11 and 09/11/2020. A third online survey with a smaller sample (total 1432 participants, out of which 943 with complete answers) was performed during 13/1 – 18/1/21.



The highlights of the surveys were the following:

#### Buying more food than needed (1st survey)

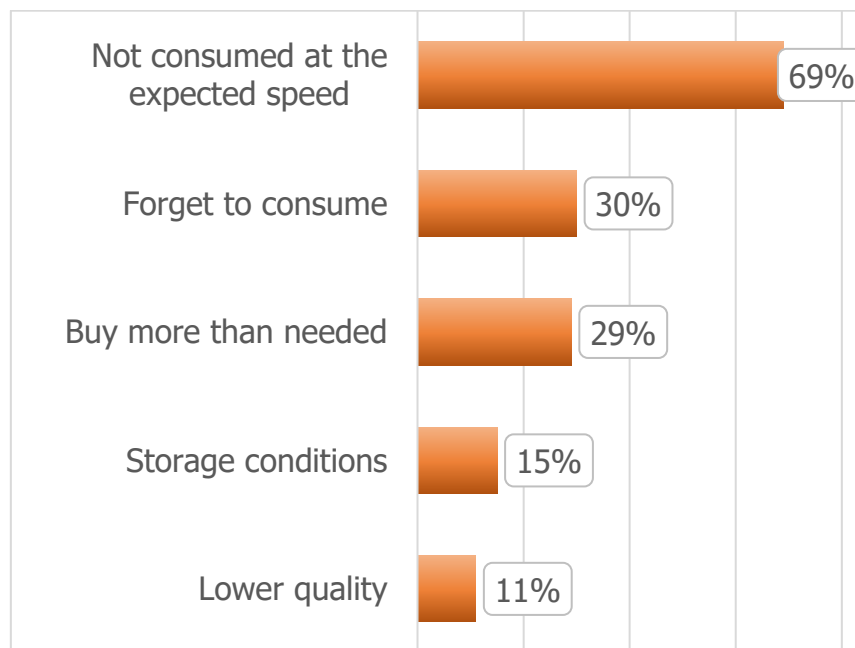
Seven out of ten consumers tend to buy more than the required quantities of food. These habits may root back into concerns of security among the population.



*Buying more food than needed*

#### Food waste generation reasons (1st survey)

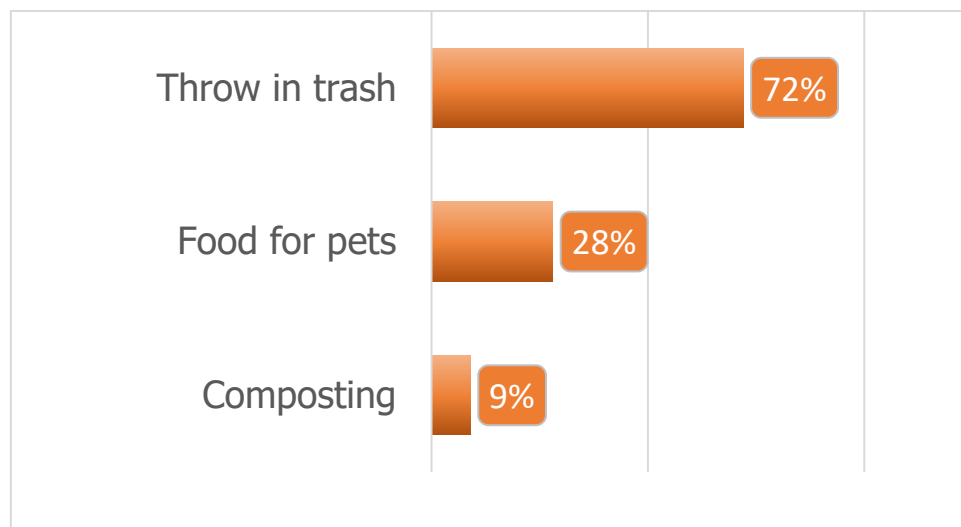
The main reason food is wasted is because it is not consumed at the expected rate, which is reported to a much greater extent by all participants in the research. To a lesser extent, consumers report that they forget to consume food and that they buy more than they need.



*Food waste generation reasons*

### Food waste management (1st survey)

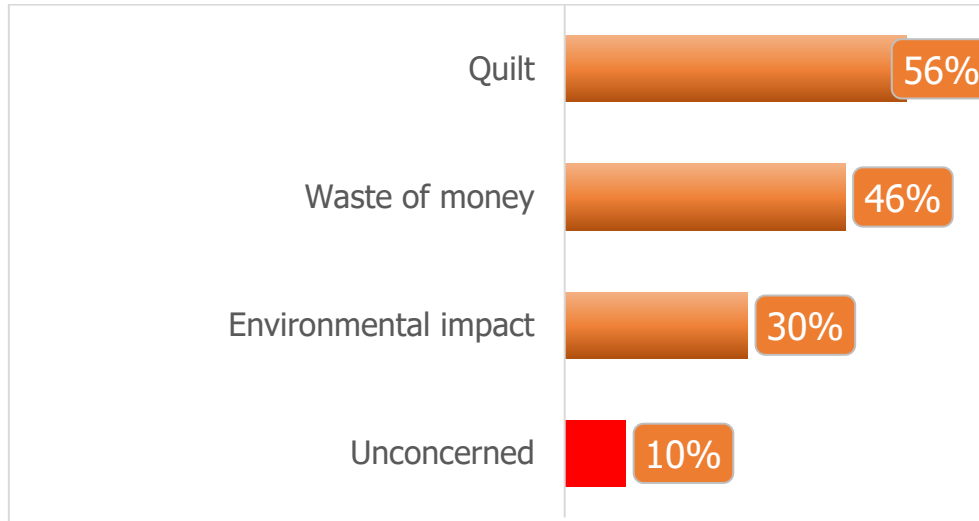
Most consumers throw away the food they consider unsuitable for consumption (72%). Three out of ten give this food to pets, while much fewer report that they compost it.



*Food waste management*

### Feelings when wasting Food (1st survey)

The main feeling of consumers when throwing food away, is a feeling of guilt (56%), secondly that of waste of money (46%) and thirdly of concerns for the Environmental impact (30%). One out of ten is completely indifferent.



*Feelings when wasting Food*

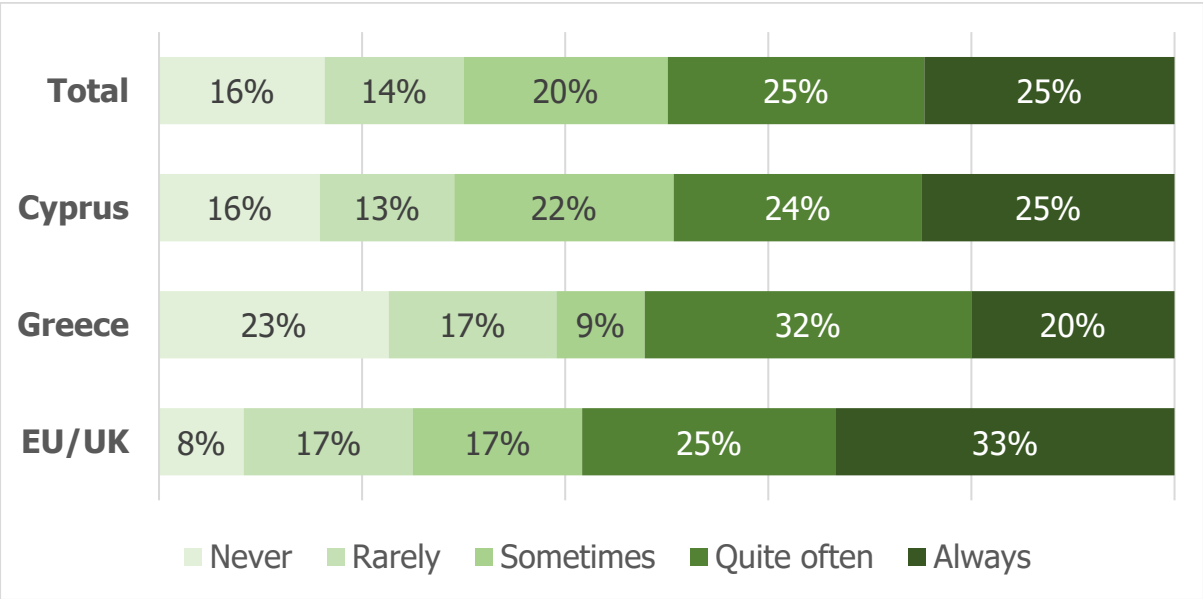
### Taking food leftover from outings (opinions Vs actions) (2nd survey)

The next question was aimed to measuring deviations between claims of importance of taking food leftover from outings and the real behaviors. In the whole sample, only 25% always take food leftovers from outings, 25% do it quite often, 20% do it sometimes and 30% do it rarely or never.

The habit of taking food leftover from outings, is more common among those living in other EU countries and the United Kingdom than among those participated from Cyprus or Greece.

Among the participants from Cyprus, 18% of them consider it very important to take with them food that is left over after eating out, but do not always do so. Among participants from

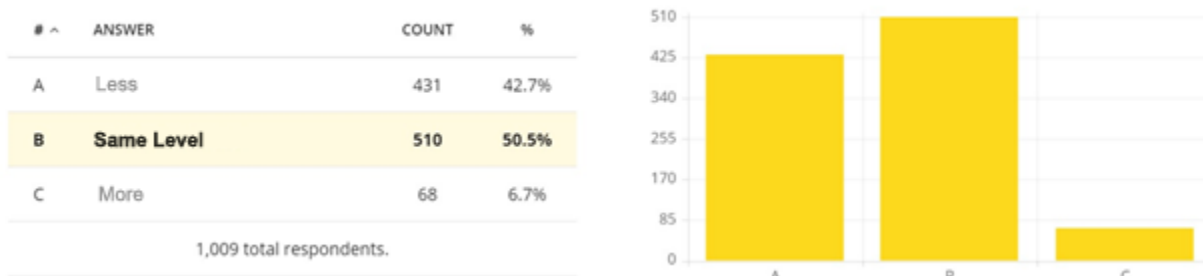
Greece it amounts to 16% and among participants from other EU countries and the UK it amounts to 14%.



Taking Food Leftover from outings

Percentage of food in household waste (3rd survey)

Almost half of the participants underestimate the problem of food waste production in their household as they consider that their production is less than the average household.



Percentage of food in household waste

## Best practices to prevent food waste

Most people do not realize how much food they throw away every day — from unconsumed leftovers to spoiled produce. By managing food sustainably and reducing waste, we can help businesses and consumers save money, provide a bridge in our communities for those who do not have enough to eat, and conserve resources for future generations.

Planning, prepping, and storing food can help your household waste less food. Below are some tips to help you do just that:

### HOW TO REDUCE FOOD WASTE



#### SHOP SMART

Check what you have at home before you shop, and only buy as much as you need.



#### SMALLER PORTIONS

Make smaller portions at home; at restaurants, share large portions.



#### BUY 'UGLY' PRODUCE

Not all fruits and vegetables are pretty, they will still taste good though



#### DONATE

If you have too much of something, share it, there are food banks or smaller initiatives to feed people in most cities.



#### KNOW YOUR DATES

"Use by" is the date by which food needs to be consumed. "Best before" means the food is best before that date, but can still be safe after that.



#### ORGANIZE THE FRIDGE

When you put new food into your fridge, move older items up to the front and tuck the new ones in the back.



#### SAVE LEFTOVERS

Save leftovers for other meals or repurpose in another dish



#### COMPOST

Compost your scraps, your garden will thank you.



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Source: FAO, UN | October 16, 2019



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