



## **The cost of food waste**

### **Food waste is generated all along the food supply chain**

Situations which generate food waste can be very different but they occur at every stage of the food supply chain. Several studies have analysed the different ways in which food is wasted.

The cost associated with food waste is made up of at least two different types of costs: the economic and the environmental costs. The economic cost includes not only the cost linked to the value of the products themselves, but also the costs linked to the production, transport and storage of the wasted products, as well as their treatment costs. From an environmental point of view, food waste represents a waste of the resources throughout the products' life cycle such as land, water, energy and other inputs, and the consequent increase in greenhouse gas emissions.

Due to the difficulties in obtaining complete, reliable and harmonised data on the current quantities of existing food waste, any estimate of the cost of waste will suffer from a lack of reliability. Nevertheless, some studies have tried to determine it and these figures can be used as indicators of the potential extent of the food waste issue.

The FAO performed an assessment of the cost on a global scale and found that in addition to an estimated economic cost of 1 trillion USD per year (that is the value of the wasted products and the subsidies paid to produce them), environmental costs (such as greenhouse gas emissions, water scarcity and erosion) reach around 700 billion USD.

### **Food waste and market forces**

The reasons why this waste is generated differ according to the role of each actor in the food supply chain. Generally, decisions taken by business operators (producers, processors and retailers) are taken with the aim of maximising profit, even though some decisions may entail generating a certain amount of food waste. While the various operators do not intend to generate food waste, it is nonetheless often a consequence.



Consumers take decisions which could lead to food waste for altogether different reasons. For them, it is rather a matter of obtaining satisfaction, whether in terms of meeting their nutritional needs or in other respects (e.g. quality, abundance, variety, price, etc.).

The reasons why food waste is generated are intrinsically linked with the issue of who pays for the cost associated with the food wasted. As regards its economic cost, there are at least three different groups of actors who pay for it: consumers, specific food supply chain operators and charities.

Operators in the food supply chain internalise this cost and include it in the final consumer price of the product. For example, a retailer will, very probably, set the product price high enough to take account of the cost of both sold and expected unsold products.

Part of the cost of food waste may be shifted from one food business operator to another. For example when significant imbalances in bargaining powers exist between business operators, the cost may be pushed back to the weaker operator.

It can also be externalised in part to charities in the form of food donation. Charities often bear the sorting, storage, handling and treatment costs that otherwise would be paid for by the operators donating such food.

The environmental cost of food waste is paid for by society as a whole mainly through the growing scarcity of natural resources (which in the long term may be translated into an increase in the price of these resources). Different studies show, using two concrete examples, how market forces influence the generation of food waste. While the report does not concentrate on these market forces, we acknowledge their importance when combating food waste. The Commission and the European Parliament have recognised the role these forces play in the food supply chain.

But food waste is a global problem. Even though the EU's action in this area will have, by definition, limited effects at world level, the EU, as an important actor on the international scene, may impact on the volume of food waste generated through the different policies for which it is responsible (such as the common agricultural policy, the common fisheries policy, the food safety policy and the waste policy). In this context, the Commission bears responsibility as it is the initiator of EU legal provisions that may have an influence on food waste generation.

At the level of the European Commission, the Directorate-General for Health and Food Safety is in charge of the food waste file. In that context it takes a number of actions (such as establishing working and expert groups) and communication initiatives. Several other Commission bodies also have a role to play in food waste prevention since several of the EU policies and provisions can have an influence on the generation of food waste (such as the aforementioned common policies).



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Finally, the responsibility that Member States bear as regards food waste is equally important. Member States can favour or hinder prevention and food donation depending on the way they enact EU provisions. Their responsibility is arguably even more important as they can also launch their own initiatives (outside the EU framework) to tackle food waste.