

Spanish Strategy “More food, less waste”



Program to reduce food loss and waste and
maximise the value of discarded food



GOBIERNO
DE ESPAÑA

MINISTERIO
DE AGRICULTURA, ALIMENTACIÓN
Y MEDIO AMBIENTE

Spanish Strategy “More food, less waste”

Program to reduce food loss and waste
and maximise the value of discarded food



Madrid, 2013



Legal notice: The content of this publication may be reused provided the source and, where applicable, the date of the most recent update are acknowledged.



SPANISH MINISTRY OF AGRICULTURE, FOOD AND THE ENVIRONMENT

Published by

© Ministerio de Agricultura, Alimentación y Medio Ambiente
Secretaría General Técnica (General Technical Office)
Publications Centre

Distribution and sale

Paseo de la Infanta Isabel, 1
Telephone: +34 91 347 55 41
Fax: +34 91 347 57 22

Publications Catalogue of the Spanish National Government:
<http://publicacionesoficiales.boe.es/>

Online store: www.magrama.es
centropublicaciones@magrama.es

NIPO: 280-13-128-X (paper)

NIPO: 280-13-129-5 (online)

Legal Deposit: M-10615-2013

Technical data: Format: 21 x 21 cm. Text box: 15 x 16.7 cm. Composition: 2 columns.
Typography: Yanone Kaffeesatz, 10 pt. Binding: Milling. Paper: Interior paper 100 g
Recycled. Cover: 250 g Bristol board. Inks: 4/4. Printed on 100% recycled paper.

"MORE FOOD, LESS WASTE" STRATEGY

Program to reduce food loss and waste and maximise the value of discarded food



Index

1. Introduction	5
2. Definitions	7
3. Where and why food loss and waste occurs	9
4. Food loss and waste around the world	11
5. Food loss and waste in Spain	18
6. The "More food, less waste" Strategy	26
7. Key players	41
Bibliographic references	42
Annex	45
Annex 1: AECOC DECALOGUE "THERE'S NOTHING FOOD CAN'T DO – DON'T WASTE IT"	46
Annex 2: EUROPEAN PARLIAMENT RESOLUTION OF 19 JANUARY 2012 ON HOW TO AVOID FOOD WASTAGE: STRATEGIES FOR A MORE EFFICIENT FOOD CHAIN IN THE EU (2011/2175 (NI))	48

“MORE FOOD, LESS WASTE” STRATEGY Program to reduce food loss and waste and maximise the value of discarded food

1. Introduction

According to the United Nations' Food and Agriculture Organisation (FAO)¹, global food production **for the year 2050 will need to increase by 70% to feed the expected population increase from 7 billion to 9 billion inhabitants.**

However, the European Commission² estimates that more than 1.3 billion tonnes of food, or **1/3 of global production**, are **wasted** every year. Of this, **89 million tonnes** of food in good condition is squandered each year in the European Union and **8 million tonnes in Spain.**

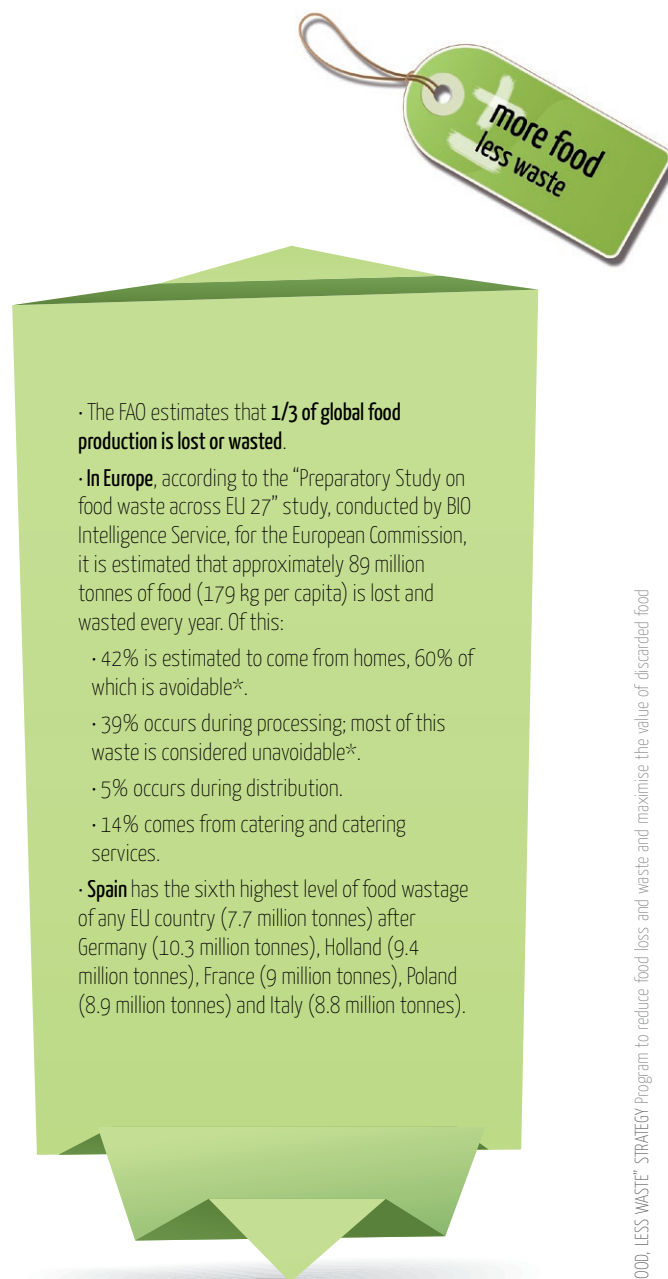
Food loss and waste can occur at every stage of the food chain, whether in the field, in processing industries, in the distribution phase, in school canteens and restaurants or in the homes of consumers themselves. The causes are not always the same and vary according to the type of product, production methods, storage, transport, packaging and, lastly, the bad habits or lack of awareness of consumers.

To date, little attention has been paid to the consequences of the failure to consume edible food **and there have been no comprehensive studies assessing the amount of food lost and wasted.**

1 FAO, GLOBAL FOOD LOSSES AND FOOD WASTE, 2012.

2 European Commission and BIO Intelligence Service, PREPARATORY STUDY ON FOOD WASTE ACROSS EU 27, 2010.

* The terms avoidable and unavoidable are established at point 2 of the document.





The food loss and waste not only represent a **missed opportunity** to feed the world's growing population but in the current economic crisis, which has put a strain on society and seen an increase in the number of people in vulnerable situations, a reduction in food waste would be a significant preliminary step in **fighting hunger and eradicating malnutrition among disadvantaged populations**.

Besides the **ethical and nutritional issues** associated with the waste of considerable amounts of edible food every day, there is the environmental impact. This involves the finite natural resources, such as water, land and the sea, used to produce this uneaten food. On top of this is the biodegradable waste in landfill, which includes unused food now contributing to climate change.

Therefore, sustainability efforts cannot be limited to addressing food production and distribution efficiency. We must also examine food consumption guidelines in order to reduce food loss and waste.

The concern of civil society and public institutions with reducing and preventing food loss and waste is shared by economic agents. In this context, improving the efficiency of production systems is key to ensuring the profitability of an increasingly competitive market.

On 19 January 2012, the **European Parliament's** "Resolution on how to avoid food wastage: strategies for a more efficient food chain in the EU", **urged member states** and food chain agents to **urgently address the problem** of food loss and waste across the entire supply and consumption chain. It asked for the formulation and support of guidelines on ways to improve the efficiency of the agri-food chain sector by sector, while urging states to include the matter as a priority on the European political agenda. Against this backdrop, it called on the Commission to promote awareness of work underway both within the High Level Forum for a Better Functioning Food Supply Chain and the European Roundtable on Sustainable Consumption and Production, as well as recommendations on how to combat food loss and waste.

To this end, the Ministry of Agriculture, Food and the Environment has developed the "More food, less waste" Strategy, which falls within its sustainability policies. **It aims to encourage transparency, dialogue and coordination between food chain agents and public administrations and to develop in an organised, coordinated and structured way, common actions that contribute**

Food loss and waste raises ethical, economic, social, nutritional and environmental issues, while requiring solutions that take food safety into account at all times.

to real change in the attitudes, work procedures and management systems of agents in the chain, thereby limiting loss and waste and reducing environmental pressures.

Because the problem of food loss and waste affects every link in the supply chain, and because numerous factors in turn in-

fluence the problem itself, the strategy deals with the challenge of ensuring the participation of every sector across society. Its development and practical application involves public administrations, food chain agents and companies, associations and society as a whole. Only then can food loss and waste be reduced across the entire supply chain.



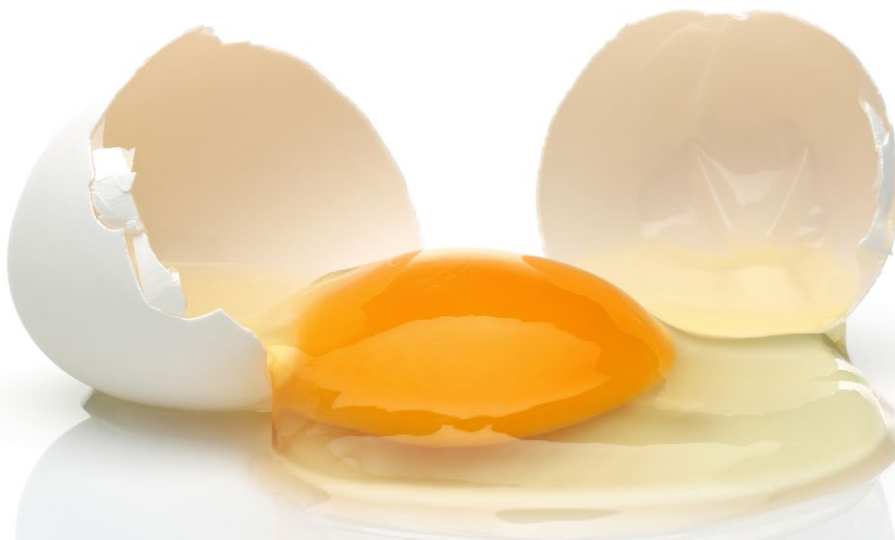
2. Definitions of food loss and waste

There is currently no consensus within the framework of international and European institutions that have addressed the issues on the definition of "food waste", with a range of loss- and waste-related terms being used indiscriminately.

By analysing a range of works and reports prepared by the FAO, the European Commission and European countries such as France and the UK, some of the definitions used can be listed.

Food loss

In the project "Food wastage footprint. *An environmental accounting of food loss and waste*", the FAO defines food loss as the decrease in edible food mass at the **production, post-harvest, processing and distribution stages in the food supply chain**. These losses are mainly caused by **food supply chain inefficiencies**, such as poor infrastructure and logistics, lack of technology, the insufficient skills, knowledge and manage-



ment capacity of supply chain agents, and operating restrictions resulting from legislation. Losses resulting from natural disasters or similar events must also be taken into account, along with supply chain-related losses.

Food waste

In the aforementioned project, the **FAO** defines food waste as food which is discarded, despite being fit for consumption.

Food waste is fundamentally related to poor food purchasing and consumption habits, as well as inadequate food management and handling. Food waste is usually avoidable.

To develop this strategy, we will be using the food waste concept established by the **European Parliament** in its "Resolution on how to avoid food wastage: strategies for a more efficient food chain in the EU". This extends the concept of food waste to cover all agri-food chain food products, discarded for economic, aesthetic or expiry date reasons, which

are still perfectly edible and suitable for human consumption, but which end up disposed of as waste for lack of potential alternative uses.

Food waste within the **consumption phase** can in turn generate the following types of waste:

- **Avoidable waste:** Foods and beverages which, despite being in perfect condition for consumption, are discarded.
- **Potentially avoidable waste:** Foods and beverages which, despite being edible and in optimum condition for consumption, are consumed by some people but not by others, depending on how they are prepared.
- **Unavoidable waste:** The wastage of foods and beverages that are not edible under normal circumstances (bones, eggshells, the skins of certain products).



3. Where and why food loss and waste occurs

Foods are lost and wasted all the way along the supply chain, from their initial agricultural production to their end consumption in the home or via catering.

In low-income countries, most food is lost during supply chain stages, ranging from production to processing. By contrast, loss and waste in high and medium income countries mainly occur because of inappropriate consumption habits.

Various international studies and experiences show that it is vital to tackle the loss and waste problem by considering the entire food chain, while taking into account the specific circumstances of each phase.

3.1. THE PRIMARY PRODUCTION PHASE

Primary production is the first link in the chain. It involves the production or cultivation of produce from the earth, live-stock breeding, fishing, hunting, etc. and provides the “raw material” for the chain.

Food loss and waste in agriculture can be divided into two categories: foods that are not harvested and foods that are lost or wasted between harvesting and their initial sale.

Given the variation and risk inherent to agriculture, it is very often difficult for farmers to adjust supply to demand. Moreover, some products cannot be harvested or sold because of damage caused by pests, diseases or the weather. This results in the planting or sowing of more crops than the market requires, in order to protect against the consequences of bad weather and adversity.

In other cases, the cause of food loss and waste centres on the volatility of market prices. If they are too low at the time of harvesting they may not cover the costs of production, prompting producers to leave some products in the field.

Another cause of loss and waste in this stage involves selective harvesting to reduce subsequent farm waste costs. This means leaving any produce that will not pass minimum quality standards in terms of shape, size, colour and age in the field.



3.2. THE MANAGEMENT, HANDLING AND STORAGE PHASE

After harvesting, the main cause of food loss and waste in developed countries is not the lack of storage facilities or infrastructure, or cold chain and transport deficiencies. Rather, it is the removal of products based on commercial quality criteria demanded by quality standards and the market, such as size, colour, weight, defects, sugar content, and so on.

3.3. THE PREPARATION AND PROCESSING PHASE (INDUSTRY)

The food industry is responsible for preparing foods using the raw material provided by primary production. Some losses occur in this process as a result of deterioration in the raw materials or because of unsuitable weight, shape or appearance, or damaged packaging that affects the safety, flavour or nutritional value of the affected foods.

The various processing operations also generate losses, mainly due to offcuts, when the edible parts (skin, fat, end portions) and the non-edible parts (bones) are removed from foods.

Loss and waste can also occur during processing, when containers and packaging formats are not adapted to consumer needs or because they are accidentally damaged during the process. The agri-food industry in developed countries pays special attention to the way this food loss and waste is reduced. Advances in packaging and the materials in contact with the food have been some of the most significant results of research carried out in recent years.

3.4. THE DISTRIBUTION PHASE (WHOLESALE AND RETAILERS)

During the marketing and sale process, the products prepared by industry are offered to the consumer through retail establishments. Fresh products also reach these establishments, principally from wholesale markets and distribution logistics platforms.

Proper transport and handling of foods is especially important in this phase of the supply chain, particularly with perishable products that require cold conditions, where the cold chain must not be broken.

Besides the deterioration of perishable products, a good deal of waste is generated in relation to consumption expiry dates (use-by and best-before dates). Further food loss and waste results from consumer handling in self-service stores, the implementation of commercial standards and changes in consumer preferences.

3.5. THE CONSUMPTION PHASE (HOUSEHOLD AND CATERING)

Consumers and the catering industry make up the final link in the food supply chain. Consumption habits and the attitudes of consumers in some areas of the planet have been a significant driver of food waste.





Poor food planning and purchasing habits, and incorrect handling of food in the home, lead to significant amount of wastage, which could be avoided.

Another source of food waste in the home is a lack of understanding of the storage and use-by information printed on labels.

The catering industry also wastes significant quantities of food, both in its kitchens and in dining rooms. The difficulties of planning when trying to balance supply and demand, and working with products that have a short shelf life, leave plenty of room for reducing food loss and waste.

4. Food loss and waste around the world

From the available studies, it is estimated that more than 1.3 billion tonnes of food **are wasted** every year. This represents **one third of global production**. 89 million tonnes of food in good condition are wasted every year in the European Union.

An in-depth review of published works highlights a lack of accurate studies revealing the precise quantities of lost and wasted food across the different phases of the food supply chain.

Despite these limitations, and to provide a comprehensive overview of the information available, various studies have been set out below. These have either estimated global levels of food loss and waste or analysed the environmental effects of this issue on a specific country or area. The list includes a short description of each study and initiatives to fight against food loss and waste, with the aim of presenting the situation as it stands.

4.1. FAO, GLOBAL FOOD LOSSES AND FOOD WASTE (MAY 2011)

This is the source of the most recent data on global food loss and waste.

The May 2011 study highlights food loss and waste occurring along the entire food supply chain, assesses its significance and establishes its causes. It also offers potential solutions to the problem. The results of the study suggest that: **one third of food produced for human consumption (1.3 billion tonnes per year) is lost or wasted worldwide. This is equal to approximately half of the world's grain harvest.**

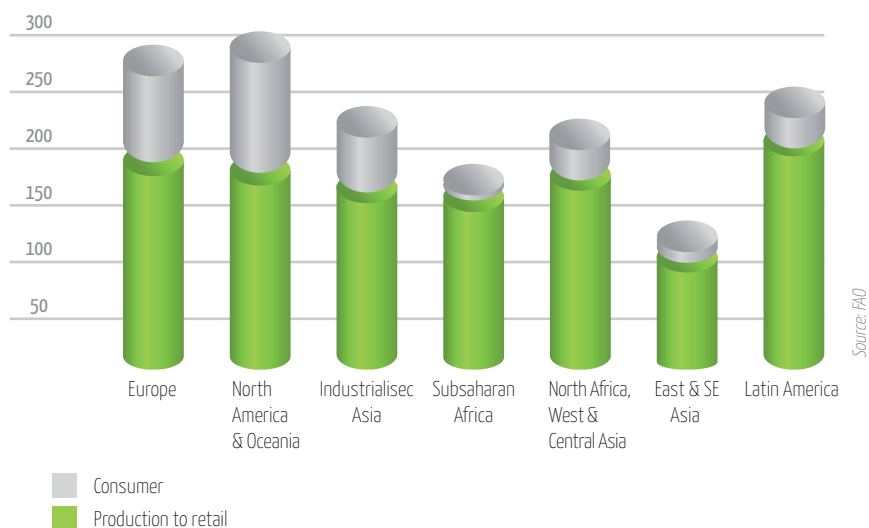
Significant quantities of resources used for food production are therefore used in vain. This generates a significant environmental impact due to the misuse of these resources and, among other effects, to the quantity of greenhouse gases generated.

The most significant data reported in the study are as follows:

- a. Both industrialised and developing countries “squander” more or less the same quantity of food: 670 and 630 million tonnes respectively, per year.
- b. The 222 million tonnes of food lost and wasted annually by consumers in rich countries comes very close to Sub-Saharan Africa’s net food production (230 million tonnes).
- c. Total per capita food production for human consumption in rich countries is 900 kg annually, close to double the 460 kg produced in the poorest regions.
- d. Forty percent of the food lost and wasted in developing countries occurs during the post-harvest and processing phase, while in industrialised countries more than 40% of food loss and waste occurs at the retail sale and consumer level.
- e. Large quantities of food are also lost at the retail sale level due to quality standards that over-emphasise appearance. Surveys show that consumers are prepared to purchase products that do not meet appearance standards, provided they are safe and their taste is not affected.

Per capita food losses and waste, at consumption and pre-consumption stages, in different regions

Per capita food losses and waste (kg/year)



f. Among other measures, the FAO is committed to education in schools and policy initiatives to change attitudes in rich countries, so that consumers can plan their food purchases more appropriately.

g. In conclusion, the suggestion is that **actions be aimed at the supply chain as a whole**, as one measure carried out (or not carried out) in one area has consequences for the others. In industrialised countries, the solutions proposed at industry and producer level would be of little benefit if consumers continue wasting food at current levels. **We need to inform consumers and change the behaviour** that causes the current high levels of food waste.

In January 2013, within the framework of the United Nations Environment Programme (UNEP) and in support of the FAO's "SAVE FOOD" and the UN's "Zero Hunger" initiatives, a new global campaign, "**Think. Eat. Save. Reduce your foot print**", was created to reduce food loss and waste.

The new campaign is directed specifically at the food wasted by consumers, retailers and the catering industry. It aims to accelerate action and provide a global vision and an information exchange portal (www.thinkeatsave.org) for the wide range of different initiatives underway throughout the world.

The campaign also endeavours to improve consumer knowledge about food expiry dates.

4.2. EUROPEAN COMMISSION AND BIO INTELLIGENCE SERVICE, PREPARATORY STUDY ON FOOD WASTE ACROSS EU 27

This is a study conducted by the European Commission's Directorate-General for the Environment (DG Environment C: Industry) published in October 2010. It analyses food loss and waste in homes, the catering industry, distribution and industry, but does not include primary production.

The study is based on an analysis of the available data and extrapolations and seeks to estimate the size of the problem. It identifies more than 100 European initiatives aimed at preventing food loss and waste.



The most significant data reported in the FAO study are as follows:

- a. It is estimated that each year in Europe between 30% and 50% of healthy, edible food is lost or wasted across all links in the agri-food chain before reaching the consumer and ends up as waste.
- b. Around **89 million tonnes of food**, or **179 kg per head** of population, is lost or wasted in the 27 EU Member States. This does not include agricultural loss and waste generated in the production process, or discarded fish thrown back into the sea.
- c. At this rate, food waste will reach **126 million tonnes per year in 2020** (a 40% increase).
- d. The approximately 89 million tonnes of food wasted generate **170 million tonnes of CO₂ per year**.

- e. Producing the 30% of food that is not consumed requires 50% more water resources to be used for irrigation. Keep in mind that producing 1 kilo of beef requires 5 to 10 tonnes of water.
- f. It is estimated that **household** food wastage makes up **42%** of the total, **manufacturing 39%**, **catering 14%** and **distribution 5%**.
- g. **Spain** has the sixth highest level of food wastage (**7.7 million tonnes**) after Germany (10.3 million tonnes), Holland (9.4 million tonnes), France (9 million tonnes), Poland (8.9 million tonnes) and Italy (8.8 million tonnes).

In response to this study, the European Parliament approved its **Resolution on how to avoid food wastage: strategies for a more efficient food chain in the EU (PE_ TA(2012)0014)**, indicating that the fight against food waste needs to become a priority in the work plan for European policy.





4.3. UNITED KINGDOM. WRAP PROGRAMME (WASTE & RESOURCES ACTION PROGRAMME) "WORKING TOGETHER FOR A WORLD WITHOUT WASTE"

WRAP aims to reduce packaging waste and the wastage of consumer foods through research and development (R&D), using promotion and advice on best practice.

WRAP works in collaboration with packaging manufacturers, retailers, brands, suppliers, research institutes, universities, design agencies and environmental and design consultants.

The Resolution asked the Commission, the Council and the Member States to prepare specific strategies and measures to halve food waste along the entire supply chain between now and 2025. It also called for efficiency gains in the sector and public awareness campaigns on a topic that in many ways remains largely ignored. It states that citizens need to be informed not only of the causes and consequences of waste, but also about ways of reducing it. It calls for the promotion of a scientific and civic culture guided by the principles of sustainability and support as a way of encouraging more appropriate behaviour. It also acknowledges that self-directed initiatives by both volunteer and professional associations aimed at spreading and creating a non-waste culture, have been very successful everywhere they have been carried out.

In this context, the European Parliament is urging the European Council and Commission to proclaim 2014 the European Year against Food Waste. It sees this as an important information and promotional tool to raise the awareness of European citizens and draw the attention of national governments to this vital issue.

The main recommendations of the European Parliament Resolution are contained in Annex 2 to this document.

The conclusions reached so far from studies conducted are that **8.3 million tonnes of food are wasted in Great Britain** every year, the majority of which is perfectly edible. Some of this waste includes peel and bones but the majority is, or was, perfectly edible food. The reasons for this enormous waste are usually the overcooking of food or the failure to consume foods prior to their use-by dates.

The studies estimate that if Great Britain were to eliminate all of its food waste, the fall in CO₂ emissions would be the same as that achieved by taking a quarter of the country's automobiles off the road.

In a three year period (2007-2010) the WRAP programme achieved a 13% reduction in the amount of food wasted. This was based on:

- a. **Studies** carried out in 2010 into the loss and wastage of solid foods through distribution and commercial catering.
- b. **Campaigns** in the UK encouraging the population to "Love Food, Hate Waste" and guides on food storage and use-by dates. These measures show that small changes to everyday practices can reduce the amount of food that is wasted.

- c. **Courtauld Commitment** (2005-2010): This is an agreement signed in July 2005 with the retail sector to reduce food loss and waste and container and packaging waste. It aimed to improve resource efficiency and reduce carbon emissions and the environmental impact of the retail food industry.

It succeeded in reducing food loss and waste by 670,000 tonnes and packaging waste by 520,000 tonnes in the UK between 2005 and 2009.

- d. **Courtauld Commitment** (2010-2012): This is a voluntary agreement involving 50 companies from the large-scale distribution sector and large brands aimed at improving resource efficiency, reducing food loss and waste and reducing container and packaging waste. It analysed the full life cycle of products from production through to their use in the home.

4.4. FRANCE. THE "STOP FOOD WASTE" ("STOP AU GASPILLAGE ALIMENTAIRE") INITIATIVE

This arose out of a "national agreement against food waste, a shared commitment" seeking to halve the volume of food waste by 2025.

The "Food loss and waste" (*Pertes et gaspillages alimentaires*) initiative was developed within the framework of this initiative in 2011. It presented an analysis of food loss and waste in France during the direct-supply-to-consumer stage (distribution, small local stores, commercial catering) and from large-scale catering enterprises (schools, hospitals, nursing homes and companies).

The study's main conclusions are as follows:

- a. Customers' purchasing and consumption habits present a challenge for the distribution and catering sectors as their random nature ensures there is always a certain volume of inevitable food loss and waste.
- b. The sectors showing the most significant volumes of food lost and wasted, requiring special attention by the French government, are the large-scale hospital, nursing home and school catering sector, commercial catering and large-scale distribution.
- c. Every French citizen wastes between 20 and 30 kg of food per year, which represents an average of 400 Euros per family. This is in addition to the cost of the municipal management of domestic waste.

MA BEAUTÉ EST INTÉRIEURE



CHACQUE FOYER JETTE 20 À 30 KG DE NOURRITURE PAR AN. CE GASPILLAGE REPRÉSENTE PLUS DE 400 € POUR UNE FAMILLE DE 4 PERSONNES. ENVIRON 50% SONT DES FRUITS ET DES LÉGUMES, SOUVENT JETÉS EN RAISON DE LEUR APPARENCE. CE ALORS QU'ILS SONT PARFAITEMENT CONSOMMABLES !



www.alimentation.gouv.fr



The **following initiatives** were launched as a result of the study:

- **A campaign for the general public** to share the available information. Creating the website *gaspillagealimentaire.fr* with a range of information about food loss and waste in France and around the world and providing a platform enabling contact with donors and recipients (Vendre et acheter plus juste).
- **Ongoing dialogue with the sector** with the aim of streamlining the shopping experience, so that people only purchase what they need. The aim is to facilitate the sale of

deferred items and promotions, so that in 3 for 2 offers, the third unit can be taken home at a later date. They are also highlighting the need to improve stock management so that products are taken off the shelves before reaching their use-by date, enabling them to be delivered to food aid agencies without compromising safety.

- Reducing food loss and waste in **large-scale catering** using **pilot programmes** in schools and company dining rooms that seek to find ways of better adjusting portion sizes.

CATERING (g/person/meal)	Large-scale catering Average: 167	Schools	147
		Hositals and nursing homes	264
		Companies	125
	Commercial catering Average: 211	Traditional	230
		Fine dining	229
		Fast food	175
Distribution (t/establishment/year)	Large-scale distri- bution Average: 179	From 50 to 199 employees	139
		More than 200 employees	507
	Small business Average: 2.6	Grocery store	1.6
		Patisserie - Bakery	3.6

5. Food loss and waste in Spain

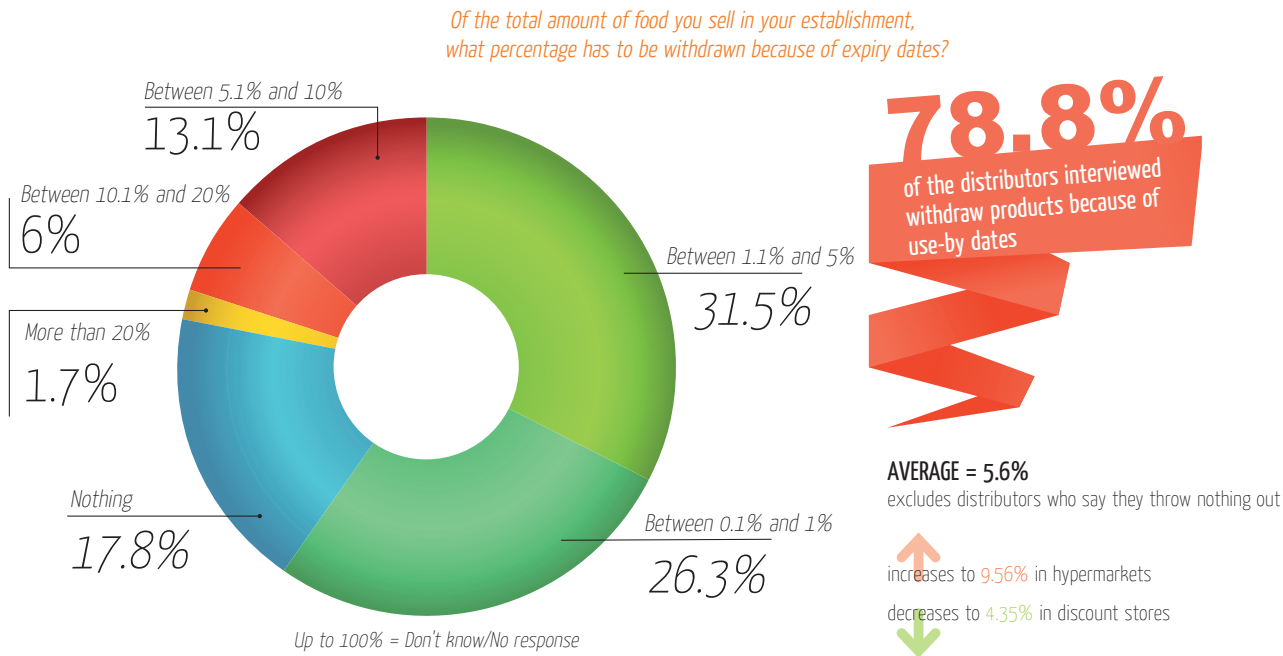
We do not currently know the exact size of the overall problem in Spain. Food loss and waste is recorded at different points along the value chain and there is no record of any studies on the issue.

From the analyses carried out, the European Commission estimates that approximately 89 million tonnes of food is wasted per year in Europe. Spain has the sixth highest total with 7.7 million tonnes.

While the most visible part of this problem, with the greatest media and social impact, is the one corresponding to food loss and waste in the distribution phase, the figures estimated in the European Commission study show that it is far from

being the point in the chain at which the greatest food loss and waste occurs. According to the study approximately 42% of food loss and waste in Europe occurs in the home. Sixty percent of this could be avoided by changing food consumption, purchasing and handling practices. Thirty nine percent occurs at processing companies, although this mainly involves unavoidable loss and waste, and lastly 14% occurs in the catering sector and 5% during distribution.

There are also no specific data on where the different operators send this wasted food.





5.1 CLIMATE OF CONFIDENCE BAROMETER FOR THE AGRI-FOOD SECTOR

To boost awareness of the current situation, in 2012 the Ministry of Agriculture, Food and the Environment (MAGRAMA) prepared the first survey within the framework of the **Climate of Confidence Barometer for the Agri-Food Sector**. This enabled us to begin to understand with a degree of detail the attitudes of producers, industry, distribution and consumers regarding food loss and waste.

The **case study on the habits of distributors in respect of foods nearing their expiry date** showed that:

- Some 78.8% of distributors withdraw an average of 5.6% of their products because they have passed their use-by dates.
- Some 58% of establishments only had to withdraw between 0.1% and 5% of their products and just 1.7% of distributors had to withdraw more than 20%.
- In order to prevent food from expiring on their shelves, 87% of distributors personally checked their shelves and 27.7% had software-based controls.

The **case study on the habits of consumers in respect of foods nearing their expiry date** showed that:

- 85.5% of the Spanish population always consult the use-by date of food products. More than half (51%) consult it on all products. Dairy products (42.1%), meat and fish (24.5%) are the products with the most commonly checked use-by dates.
- Some 77.2% are accustomed to always checking use-by dates of the products in their pantry and refrigerator. When they find an expired product in their pantry or refrigerator, 59.2% throw it out, 20.7% consume it if the product is only a little past its use-by date and 19.5% choose to throw out or consume depending on the type of product.
- 78.8% of those interviewed who consume products even though they have past their use-by dates made particular mention of yoghurt.
- By contrast, the main products that were never consumed once past their use-by dates were fresh products - meats, fish, fruits, etc. - (57.7%), Preserves (26.7%), Milk/Shakes (24.5%), Cold cuts (12.3%).
- The financial crisis has changed consumption patterns. Thus, 41.3% of consumers said they had reduced the amount of food they put in the garbage and 13.7% reuse more products, such as oil.
- Some 64.7% of consumers said they understood the differences between the use-by date and the best-before date. By age, this percentage was highest among young people (70.7%) and lowest among those over 55 (54.9%).



- Presented with the idea that distribution establishments could offer specials on food products nearing their use-by dates, the majority of those interviewed (54.6%) admitted they would buy them. By age, this percentage was highest among young people (65.3%) and lowest among those over 55 (45.9%).
- Some 75.1% of consumers approved of the idea raised in the European Parliament to extend the use-by dates of some products to reduce the number of tonnes of food in good condition that is wasted every year.

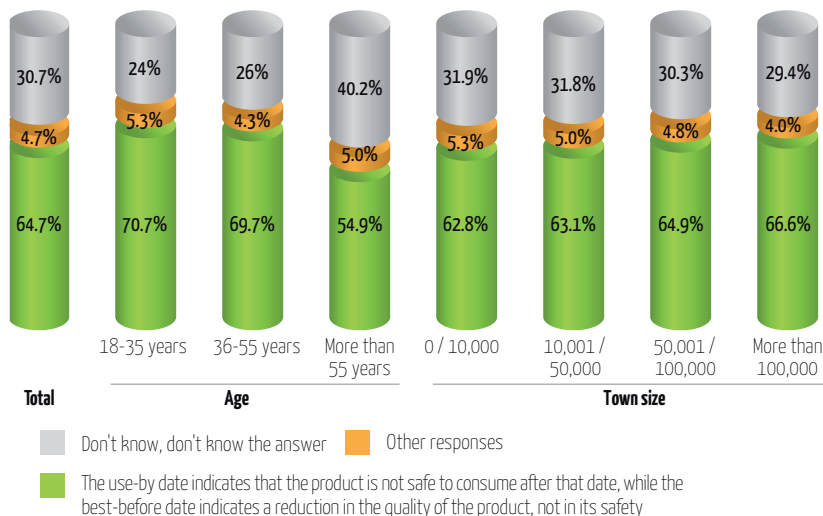
Case studies on the perceptions of producers, industry, wholesalers and distributors regarding food loss and waste showed that:

- Some 70.6% of producers said they didn't have to withdraw any products because they couldn't sell them. This percentage decreased to 49% for Industry and 40.5%

among wholesalers. Among companies that were forced to withdraw products, producers withdrew 8.1% of their products, industry 7.7% and wholesalers 7.1%.

- The main motive behind withdrawing these products was that they had spoiled. A secondary reason put forward by producers was excess production. This was because of defective containers in industry and because of unsuitable commercial strategies for wholesalers.
- Half of the operators that had to withdraw products because they could not sell them admitted that they threw them out. The recycling/reuse percentage was 38.6% among producers, 31.4% in industry and 22.4% among wholesalers. The highest percentage of those who donated to food banks/NGOs was among wholesalers (44.9%), while within industry it was 18% and for producers the figure was 9.2%.

Awareness of the difference between use-by dates and best-before dates



- Producers that withdrew part of their production because they could not sell it sent an average percentage of 7.9% to consumers and 14.4% to industry. 75.4% said they sent nothing to consumers and 55.7% sent nothing to industry.
- Of the producers interviewed, 8.2% said they had a re-valuation system for the products they withdrew and 8.2% also believed that a system to reduce waste could be established. This percentage increased to 18% among wholesalers.
- The main systems that producers mentioned were:
 - Appropriate strategies and methods of production, collection and storage.
 - Recycling systems (oil for boats, biomass, cosmetics, fertilizers, etc.).
 - Planning production to meet demand; estimate-based production.
- For their part, wholesalers believe that use-by dates should be more closely monitored. To a lesser degree, they pointed out the importance of improving handling and sending excess production to be preserved.
- Industry professionals are the agents who are the most concerned with the issue of food waste. Some 49.5% acknowledged that this issue was of concern to them and 65.6% believed that measures should be taken. More than 42% of both producers and wholesalers were concerned and more than 50% of these likewise believed that steps should be taken in this area.
- In terms of who should take these measures, the Spanish government should be primarily responsible according to the various operators. However, they were largely of the view that it should also be the responsibility of Autonomous Communities, local councils and the agri-food sector itself.

- The points on the food chain that produce the greatest amount of food waste are: wholesale distribution, retail distribution and consumers. The responses were consistent within each agent category.

Case studies on the perceptions of producers, industry, wholesalers and distributors regarding use-by dates showed that:

- Some 64% of industries interviewed believed the current use-by date system to be adequate and 36% thought it should be reviewed to extend product shelf life.
- Within industry, 11.8% said that organised distribution often returned items. The main reason used to justify these returns was defective products. The majority of industry, 55.8%, did not dispute these returns but 44.2% did.

The majority of distributors:

- Were positive (80.8%) about the idea of reviewing use-by and best-before dates to extend product shelf life.



- Were positive (76.9%) about the idea of developing regulations to include labelling with two dates, one a sell-by date and the other a use-by date.
- Were positive (71.7%) about the idea of developing regulations allowing products close to their use-by dates to be sold at a cheaper price.
- Are demanding (51.1%) that the industry adapt its packaging formats to the actual needs of the consumer.

5.2 OTHER STUDIES OF INTEREST

There is a range of private initiatives, carried out by the business sector and consumer associations, seeking to understand the size of the problem. Some of the results of the various studies conducted in Spain are listed below:

The Save Food Study

The "Save Food" study, conducted in 2011 by food storage brand Albal, was the first pan-European study carried out on food waste in individual homes. Conducted in seven countries, the study uncovered data relating to food waste in European homes.

The results were based on a total of 1500 survey respondents in Germany, France and Spain (representatives of the total population based on: home size, community size, region and type of home).

The most significant data on food waste in European and Spanish homes uncovered by the study are as follows:

On average, Europeans throw out 20% of the food they buy. The Spanish waste **around 18%, equivalent to 2.9 million tonnes of food every year, worth 11 billion Euros.**

Every person in Spain throws out an average of €250 worth of food annually. More than 45% of this food could have been consumed if its purchase had been planned and managed and if it had been stored better. Approximately 30% of packaged food is thrown out before being opened and fruit and vegetables make up around 50% of the food wasted, followed by leftovers from home-cooked dishes and/or fast food.

Consumers in Spain estimate the percentage of food they waste at 4% when in fact the figure is 18%. This shows a **genuine lack of awareness of the actual amount of food wasted.**

In 2012, Albal conducted a second "Save Food" study on food waste in different Spanish regions. The results were based on a total of 600 online interviews conducted with those responsible for household purchases in the Autonomous Communities of Andalusia, Catalonia, Galicia, Madrid, the Basque Country and Valencia.

The most significant data reported in the study are as follows:

The Autonomous Communities that generate the most avoidable waste due to poor planning or storage are Andalusia, with 10.37% avoidable waste of the total amount of food purchased by weight, followed by the Community of Madrid with 8.09%, Galicia with 7.67%, the Basque Country with 7.71%, the Valencian Community with 7.05% and, in last place Catalonia with 6.21%.

Galicia and Andalusia are the regions in which food is purchased most frequently, with averages of 15.8 and 15.2 purchases per month respectively. At the other end of the scale are Catalonia and the Basque Country with 13.1.

As far as writing shopping lists, Madrid and Galicia are the most "organised" regions, while Catalan consumers do the least "planning" when preparing menus.

The least impulsive region when shopping is Catalonia, followed by Valencia. At the opposite end are Madrid and Andalusia, where consumers are happier making impulsive decisions.

Study on household food waste

This study, published in 2013, was conducted by HISPACOOOP (Spanish Confederation of Consumers' and Users' Cooperatives) and has been endorsed by the INC (National Consumption Institute). It collected the results obtained from surveys conducted with 413 **Spanish households** on the **amounts of food wasted** in the domestic environment, the **types of food** wasted and the **reasons** why the food ended up in the rubbish bin.

To learn about the behaviour and attitudes of Spanish consumers on the correct use of food, 3454 online surveys were also conducted to collect the **thoughts of consumers on food management** (purchase, preparation, storage and preservation) and on **basic concepts relating to food use-by dates**.

The study's main conclusions are as follows:

The average amount of food wasted per household (average 2.7 people) is 1.3 kg/wk. or 76 kg/year, which is more than half a kg of food per person per week.

Spanish households throw out 1.5 million tonnes of edible food per year.

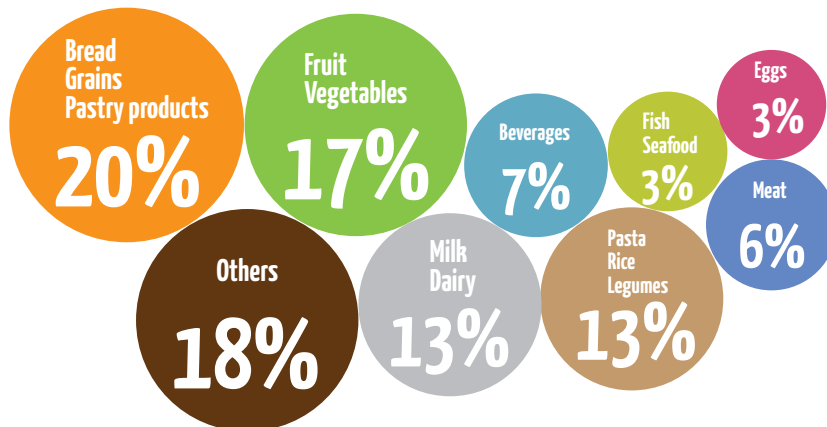
The most commonly wasted foods are bread, grains and other bakery items (19.3%), followed by fruit and vegetables (16.9%) and milk, yoghurt, cheese and other dairy products (13.3%).

Lunch is the most common meal at which food is wasted (34.6%), followed by dinner (20.1%), breakfast (20.1%) and (18.6%) at other times.

The main reason for throwing food away is that it is leftover from meals (86.4%), followed by product deterioration due to poor preservation or storage or the passage of time (63.6%), leftovers intended for use but forgotten (45.6%), overcooked or improperly prepared products (18.6%) and products whose best-before date has expired (9.6%).

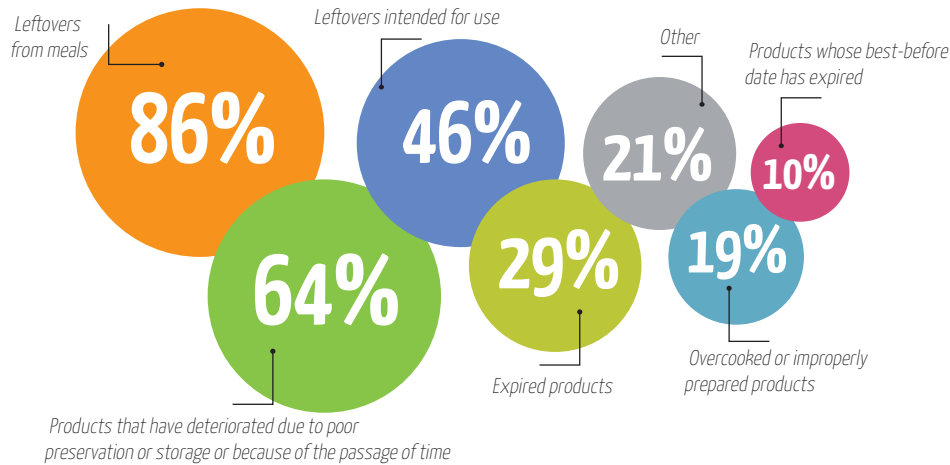


Types of food wasted in Spain



Fuente: HISPACOOOP

Reasons for throwing out food



Fuente: HISPACCOOP

The type of household most likely to throw away food contains two people, is middle class, has a person responsible for purchases who is 60 or older and is located in the autonomous communities of Catalonia or Madrid.

Consumers remain unaware of the amount of food they throw out. The person responsible for household purchases generally believes that he or she does not throw out any one type of food more than any other, except for fruit and vegetables. Consumer perceptions about the food waste produced in the home contrast with what is actually thrown out, except in the case of some food groups such as bread, grains and other bakery products.

In terms of the behaviour and habits of those responsible for purchasing food in Spanish homes, seven out of ten always or almost always check the condition of the food they have in the house when planning household shopping (69%). Two of every three make sure they prepare a shopping list in advance (65.1%).

The majority of consumers try to save food left over from other meals (94.8%), in contrast with a small number who admit throwing it out (4.9%). Of those who intend to save food, 95% usually freeze it in containers or refrigerate it for a later meal, compared to 4.7% who freeze or store in the refrigerator only to throw it away later.

In terms of planning purchases based on previously organised menus, 36.7% of those responsible for food in the home always, or almost always, plan their purchases according to menus, while 37% do it quite often.

When purchasing, seven out of ten consumers responsible for food say they check the use-by or best-before dates on all or almost all of their food (69.3%). One quarter say they check the dates on some foods but not all (26.5%) and 4.2% say they never or almost never check dates.

The results of the surveys show there is confusion about the difference between use-by and best-before dates. Some 25%

of interviewees believe that the use-by date means that the food no longer retains its specific qualities after this date but is safe to eat, which could result in them eating spoiled food. Another 24% believe that the best-before date means that after this date the product is not completely safe to eat, which could see a large amount of perfectly edible food wasted.

“Responsible Food Consumption” study

This study, published by the Catalan Waste Agency in 2013, attempts to quantify food loss and waste, identify the causes and put forward proposals for action to reduce this loss and waste, as well as the social, economic and environmental impacts that results from it.

The study's main conclusions are as follows:

More than 260,000 tonnes of food are wasted in Catalonia every year, which is 7% of the food bought by families, res-

taurants and businesses. In other words, 35 kg of usable food per person is thrown out every year. This is equivalent to throwing out 25 days worth of food or feeding more than half a million people a year.

Households (58%) are responsible for the most lost and wasted food, followed by supermarkets (16%), catering (12%), retail trade (9%), catering (4%) and municipal markets (1%).

The main factors influencing food loss and waste in the home are a lack of awareness about what is being thrown out, poor shopping planning, a lack of awareness of storage techniques, confusion about use-by and best-before dates and the meal portions that can be bought in supermarkets.

In distribution, some of the problems include the growing demand for refrigerated products and the shelf life of fresh produce.



6. “More food, less waste” Strategy

The launching of the “More food, less waste” Strategy requires the participation of broad segments of society and agents in the food chain.

Preventing and reducing food waste is a multi-sectoral, multi-disciplinary and multi-factorial task of the kind required to launch and manage this strategy.

Therefore, the “More food, less waste” Strategy is based on:

- **A clear objective:** limit food loss and waste and reduce environmental pressures.
- **Two fundamental pillars** to achieve it:
 - Apply the strategy transparently, sustainably and cooperatively, promoting dialogue and coordination between agents in the food chain and public administrations.
 - Promote a real change in attitudes, work procedures and management systems in an organised, coordinated and structured way across all agents in the chain.

The strategy aims to offer a **positive image**: Every agent involved in the food supply chain can and is contributing directly or indirectly to the prevention and reduction of food loss and waste.

However, we need to **unite the efforts of all stakeholders involved**, to continue working on improving food chain efficiency, contributing thereby to the short-, medium- and long-term reduction of food waste.

Implementation of the strategy should take into account **the hierarchy that drives Directive 2008/98/EC of the European Parliament and of the Council, of 19 November 2008, on waste**, and on which the order of priority of the actions to be carried out under this strategy will be established: prevention (of food waste), reuse, recycling and lastly, other types of recovery.

The prevention and reduction of food waste should not be linked to an interventionist and restrictive policy. According to this philosophy, the “More food, less waste” Strategy will be implemented through **recommendations, voluntary agreements and self-regulation**. However in some areas, these measures may be accompanied by regulatory initiatives to improve supply chain efficiency.

Current awareness of the size of the problem caused by food waste is limited. It will therefore be necessary to assess, within the framework of the Strategy Monitoring Committee and with the participation of all agents, the results of the studies carried out in this area, identifying and prioritising those actions that have had or will have a greater impact on reducing food waste.

The strategy aims to offer a positive image:
Every agent involved in the food supply chain can
and is contributing directly or indirectly to the
prevention and reduction of food loss and waste.

Lastly, it is important to drive the participation of every institution, association and agent that can contribute to keeping the strategy alive and to promoting an exchange of experiences with countries from our region and international organisations.

6.1 OBJECTIVE

The “More food, less waste” Strategy is framed within this Ministry’s **sustainability policies**. It aims to encourage **transparency, dialogue** and **coordination** between food chain agents and public administrations and to develop in an organised, coordinated and structured way, common actions that drive real change in the attitudes, work procedures and management systems of agents in the chain, thereby limiting food loss and waste and reducing environmental pressures.

6.2 SCOPE

The strategy is designed to focus on foods and foodstuffs lost and wasted along the food chain and the agents or operators involved with the chain. Foods and foodstuffs are as defined in **Regulation 178/2002 of the European Parliament and of the Council, of 28 January 2002, which established the general principles and requirements of food legislation**, created the European Food Safety Authority and laid down food safety procedures.

“Food” (or “foodstuff”) means any substance or product intended to be, or reasonably expected to be ingested by humans, whether processed, partially processed or unprocessed. “Food” does not include feed, live animals, unless they are prepared for placing on the market for human consumption, plants prior to harvesting, medicinal products, cosmetics, tobacco and tobacco products, narcotics or psychotropic substances, residues and contaminants.

6.1. IMPLEMENTATION PERIOD

A three year horizon is provided for implementation of this strategy, which will enable the actions established to be carried out.

6.2. AREAS FOR ACTION

To achieve the proposed goal, action will be taken in the following fields:

- a. Studies to understand the what, how, where and why of food loss and waste.
- b. Spreading and promoting good practices and awareness.
- c. Analysing and reviewing regulatory aspects.
- d. Collaborating with other agents.
- e. Promoting the design and development of new technologies.

The “More food, less waste” Strategy will serve as a platform for including and driving all initiatives that contribute to reducing, as far as possible, food loss and waste and to helping make better use of food.

What follows is a detailed description of the activities planned for the five areas of action outlined above.



A- CARRYING OUT STUDIES TO FIND OUT THE COSTS, HOW'S, WHERE'S AND WHY'S OF WASTE

AREA: Studies to find out the cost, how's, where's and why's of waste

ACTION: Promoting the carrying out of research and generation of knowledge to find out the costs, how's, where's and why's of food waste.

OBJECTIVE: Knowing at what stage and processes waste occurs in the value chain, its quantification and value, its economic, social, nutritional and environmental impact, and how food waste is currently recycled or re-used.

ACTIONS:

- a. Promoting the holding of **conventions, academic and technical sessions** to find out about and discuss food waste.
- b. **Defining and agreeing**, with agents in the sector, **the basic concepts relating to food waste** at each stage in the chain to harmonise the methodologies used for the preparation of research and the comparison of results.
- c. **Defining the methodology to be used** in preparing research: Bibliographic analysis, the collection of quantitative data (interviews and weighing campaigns), qualitative interviews, and quantitative methodology.
- d. Defining the **volumes** and **types of food products** lost, wasted or thrown away at each stage of the value chain, identifying **potential causes** and proposing **ways of reduction**.
- e. Knowing the **behaviour of the consumer** in the home in relation to food waste, through their purchasing steps, and determining and quantifying **loss and waste of food in the catering business**.
- f. Measuring **the level of awareness of the problem of food waste**.
- g. **Establishing a body for monitoring**, collecting and analysing the information, national and international, that is generated around these questions.
- h. Promoting **agreements with different authorities** for the **exchange of information** from the different research that may affect or reduce food waste and loss.
- i. Drawing up **comparative analyses** of the results from our country and those from others.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Other authorities, Primary production sector, Food industry, Distribution sector, HORECA Channel, Consumers.



AREA: Studies to find out the costs, how's, where's and why's of waste

ACTION: Working on the design of evaluation indicators.

OBJECTIVE: Measuring the attitudes, perception, practices and behaviour of companies and citizens in terms of prevention, re-use and recycling of food waste and assessing the real impact of measures taken by the authority, both by sector and region.

ACTIONS:

- a. **Promoting the development of indicators** that enable the assessment of evolving attitudes among consumers and operators on the chain in the face of food loss and waste, and the incorporation of new working and consumption methods aimed at reduction.
- b. **Promoting partnership agreements** with FIAB, AECOC, FEHR, sales distribution associations, Agri-food cooperatives and OPAS **for the exchange of information on methods for measuring food loss and waste by companies**, and their destination, use or exploitation.
- c. Working to establish a global assessment **model for loss and waste of food**, enabling its quantification and valuation at the different phases of the chain, and to find out how it evolves over time.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Other authorities, Primary production sector, Food industry, Distribution sector, Consumer Organisations.

B- DIVULGING AND PROMOTING BEST PRACTICE AND AWARENESS RAISING ACTIONS

AREA: Divulging and Promoting Best Practice and Awareness Raising Actions

ACTION: Drawing up and distributing best practice guides to reduce loss and waste of food among the economic players of the food chain.

OBJECTIVE: Drawing up and distributing best practice guides between farmers, companies and operators in the chain, that improve knowledge of existing problems and promote the adoption of corrective measures.

ACTIONS:

- a. **Drawing up**, in partnership with agents on the food chain, **guides of best practice** to reduce food waste and loss.
- b. **Drawing up**, with the affected sectors, **guides for professionals from retail establishments and distribution associations, informing consumers** about best conservation practices and the preparation of perishable products.
- c. **Distribution of best practice guides** among agents in the sector through physical events, electronic means and social networks.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Health Ministry, Social and Equality Services, Other Authorities, Primary production sector, Food Industry and Distribution Sector, Spanish Nutrition Foundation.



AREA: Divulging and Promoting Best Practice and Awareness Raising Actions

ACTION: Developing information campaigns aimed at consumers and the catering sector.

OBJECTIVE: Working on the development of informative campaigns aimed at consumers and the catering trade, in relation to knowledge of practices for the conservation of food and the importance of reducing food waste in the public and private sphere.

ACTIONS:

- a. **Promoting awareness and information campaigns and disseminating information** on the value of food and agricultural products and the causes and consequences of squandering food, and methods of reducing it.
- b. Working with bodies from the catering trade **to promote better use of products, better management practices, the carrying out of internal audits in kitchens and stores**, and encouraging the practice of “Don’t throw it away”.
- c. Designing **self assessment systems in homes and the catering sector** to provide tools to assess the progress made in application of best practice guides.
- d. Encouraging the introduction of **education and awareness campaigns** on food waste in schools.
- e. **Preparing guides of best practice on food management** (conservation systems, purchasing decisions, portion sizes, benefits and ways of using certain food, etc) paying special attention to the nutritional value of foods according to their method of conservation, preparation and re-use.
- f. **Distributing guides** through face-to-face methods and electronic means, using social networks to distribute these best practices and preparing audiovisual documentation aimed at the mass consumption market.
- g. Creating a **website aimed at promoting social responsibility and a public debate** relating to food waste.
- h. **Supporting the measures promoted within the framework of the European Parliament’s proclamation of 2014 as the European year against food waste.**

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Ministry of Sanitation, Social and Equality Services, Other Authorities, Primary production sector, Food Industry and Distribution Sector, Spanish Hotel and Catering Federation, Spanish Nutrition Foundation.

C- ANALYSING AND REVIEWING REGULATORY ASPECTS

AREA: Regulatory aspects

ACTION: Promoting institutional cooperation in light of a possible review of regulations applicable to the sector.

OBJECTIVE: Identifying, in partnership with agents on the food chain, the regulatory hurdles that can limit the reduction, re-use or recycling of food waste.

ACTIONS:

- a. Identifying possible **regulatory requirements** in national legislation that may impact the generation of losses or waste.
- b. Identifying possible **existing limitations on the re-use** of non saleable products.
- c. Reviewing **quality standards** applicable to external aspect, such as calibre and shape.
- d. Encouraging **legal measures and incentives** to encourage food **donations** to charitable bodies.
- e. Analysing the **application of health standards in small businesses** to facilitate local trade initiatives, within the framework of food safety requirements.
- f. Reviewing **rules on the management of sub-products not intended for human consumption**, to facilitate their processing and use for food or energy purposes.

KEY PLAYERS: Ministry of Sanitation, Social and Equality Services, Ministry of Agriculture, Food and the Environment, Food Industry, Distribution Sector, Primary production sector.

D- PARTNERSHIP WITH OTHER AGENTS

ÁREA: Actions in partnership with other agents



ACTION: Promoting voluntary compliance agreements.

OBJECTIVE: Encouraging and cooperating in the definition of the commitments that companies, organisations and associations from different links of the food chain voluntarily comply with making progress by reducing food waste. Contributing to the development and compliance of said agreements.

ACTIONS:

- a. **Institutional support** from the Ministry **with the development of the “Food has no waste, use it” Decalogue** driven by the AECOC (a detailed description of this agreement is included as Annex 1).
- b. **Participation of the MAGRAMA in the committees** created within the framework of the “Food has no waste, use it” agreement, for the development of preventative actions, the redistribution of food waste and legal aspects covered in the Decalogue.
- c. **Encouraging corporate social responsibility policies** so that industries involved in the food chain (cold sector, producers of packaging materials...) and public centres also commit to establishing practices aimed at reducing food waste.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Other authorities, Associations in the primary production sector, the Food industry, the Distribution Sector, AECOC and other business sectors involved in the food chain.

AREA: Actions in partnership with other agents

ACTION: Developing partnerships with food banks and other charities.

OBJECTIVE: Contributing to maximising the redistribution of food waste, promoting partnerships with food banks and other bodies.

ACTIONS:

- a. Encouraging the **establishment and development of agreements between food banks, charities and the agri-food sector** to boost the supply of food in said bodies and facilitate the contribution of excess food.
- b. Developing actions aimed at **increasing**, between the agri-food sector and society, the **level of awareness of the need and benefit of cooperating with food banks and other entities**.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Other authorities, Primary production sector, Food and Distribution Industry, Food Banks and Spanish Red Cross, MERCASA.



AREA: Actions in partnership with other agents

ACTION: Encouraging short sales channels.

OBJECTIVE: Boosting direct relations between producers and consumers, shortening the food supply chains, as a means of contributing to the reduction of food waste and loss.

ACTIONS:

- a. Coordinated development of actions to facilitate the application of hygiene standards in small businesses, and encouraging **local business initiatives**.
- b. Development of **discretionary labelling and quality mentions** linked to small scale production, following traditional production methods.
- c. Development and encouragement of short sales channels, with actions such as:
- d. Encouraging the establishment of **networks of producers and consumers**.
- e. Promoting **micro-logistics** research adapted to the characteristics of the market.
- f. Support of initiatives for the **promotion of local products and direct sale** (both through advertising aimed at the consumer and through the holding of events).
- g. Design and implementation of **guides or records to improve the knowledge of this type of channel**, facilitate use by consumers and provide a way of assessing their development and evolution.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Sanitation, Social and Equality Services, Other authorities, HORECAS channel, OIAAs, Food Industry, Primary production sector.

AREA: Actions in partnership with other agents

ACTION: Encouraging sector or company-based audits.

OBJECTIVE: Encouraging the development and application of audits within companies, aimed at assessing the efficient management of food waste and loss, and identifying areas for improvement.

ACTIONS:

- a. Developing **self-assessment methods for measuring food waste and loss** in the areas of production, industry and distribution, with the aim of quantifying and establishing quantitative indicators on the evolution of food waste within the company, enabling **internal audits** and the improvement of efficiency in the prevention and treatment of food waste.
- b. Divulging **real cases to show the benefits of an audit system** aimed at assessing the efficient management of food waste.
- c. Partnerships with companies or associations representing the agri-food sector to **boost the incorporation of voluntary internal audit systems** that enable self assessment and better self control of food waste.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Primary production sector, Food industry, Distribution Sector, Hotel and Catering sector.

E- ENCOURAGING THE DESIGN AND DEVELOPMENT OF NEW TECHNOLOGIES

AREA: Encouraging the design and development of new technologies



ACTION: Encouraging the design and development of new technologies.

OBJECTIVE: Within the framework of innovation policies for the food industry, projects will be promoted to improve the efficient use of products.

ACTIONS:

- a. **Agreements and partnerships with entities in the agri-food sector and technological research centres** to promote work and projects to improve the efficient use of products.
- b. Incorporating the goal of reducing and recycling food waste, as a **horizontal objective in the innovation policies** promoted by the public authorities.
- c. Studying the viability of **granting subsidies and financial assistance** to boost innovative projects aimed at the reduction and recycling of food waste.
- d. Promoting **competitions for the best innovation projects** and disseminating them throughout the sector in relation to food waste.
- e. Encouraging **debate forums** focusing on innovation applied to the reduction of food waste.
- f. Supporting the **use of the Internet and new technologies and establishing a community of knowledge and innovation** concerning food waste focused, among others, on preventing food waste and loss.
- g. **Disseminating examples of good practice** in the agri-food sector, enabling it to be the driver of new initiatives.
- h. **Promoting partnerships with countries in the European Union** to become aware of and disseminate technologies used to reduce food waste and improve re-use.

KEY PLAYERS: Ministry of Agriculture, Food and the Environment, Primary production sector, Food industry, Distribution Sector, Hotel and Catering sector.

6.5. SUMMARY TABLE

'More food, less waste" STRATEGY		
AREAS	ACTIONS	OBJECTIVE
CARRYING OUT RESEARCH INTO THE COSTS, HOW'S, WHERE'S AND WHY'S OF WASTE	Promoting the carrying out of research to find out the costs, how's, where's and why's of waste	Knowing at which stage and processes waste occurs in the value chain, its quantification and value, its economic, social, nutritional and environmental impact, and how food waste and loss is currently recycled or re-used
	Working on the design of evaluation indicators	Measuring the attitudes, perception, practices and behaviour of companies and citizens in terms of prevention, re-use and recycling of food waste and assessing the real impact of measures taken by the authority, both by sector and region
DIVULGING AND PROMOTING BEST PRACTICES AND AWARENESS RAISING MEASURES	Preparing and disseminating guides of best practice between economic	Drawing up and distributing best practice guides between farmers, companies and operators in the chain, that improve knowledge of existing problems and promote the adoption of corrective measures
	Developing awareness campaigns aimed at consumers and the catering sector	Working on the development of informative campaigns aimed at consumers and the catering trade, in relation to knowledge of practices for the conservation of foodstuffs and the importance of reducing food waste in the public and private sphere
ANALYSING AND REVIEWING REGULATORY ASPECTS	Promoting institutional cooperation in light of a possible review of regulations applicable to the sector	Identifying, in partnership with agents on the food chain, the regulatory hurdles that can limit the reduction, re-use or recycling of food waste



'More food, less waste' STRATEGY

AREAS	ACTIONS	OBJECTIVE
PARTNERSHIP WITH OTHER AGENTS	Promoting voluntary compliance agreements	Encouraging and cooperating in the definition of commitments that companies from different links in the food chains voluntarily comply with making progress by reducing food waste. Contributing to the development and compliance of said agreements
	Developing partnerships with food banks and other charities	Contributing to maximising the redistribution of food waste, promoting partnerships with food banks and other bodies
	Encouraging short sales channels	Boosting direct relations between producers and consumers, shortening the food supply chains, as a means of contributing to the reduction of food waste and loss
	Encouraging sector or company-based audits	Encouraging the development and application of audits within companies, aimed at assessing the efficient management of food waste and loss, and identifying areas for improvement
ENCOURAGING THE DESIGN AND DEVELOPMENT OF NEW TECHNOLOGIES	Encouraging the design and development of new technologies	Within the framework of innovation policies for the food industry, works and projects will be promoted to improve the efficient use of products

'MORE FOOD, LESS WASTE' STRATEGY Program to reduce food loss and waste and maximise the value of discarded food

6.6. APPLICATION AND DEVELOPMENT OF THE STRATEGY

With the aim of attaining the goals set forth in this Strategy, an Oversight Committee will be set up.

The **Oversight Committee**, comprising the Administration and the key players involved, shall be responsible for monitoring the development of the actions set forth in the Strategy, with the requirement to regularly report on aspects such as the level of implementation of the actions proposed in the "More food, less waste" Strategy, the difficulties encountered during its development, the results achieved and the corrective actions to be introduced.

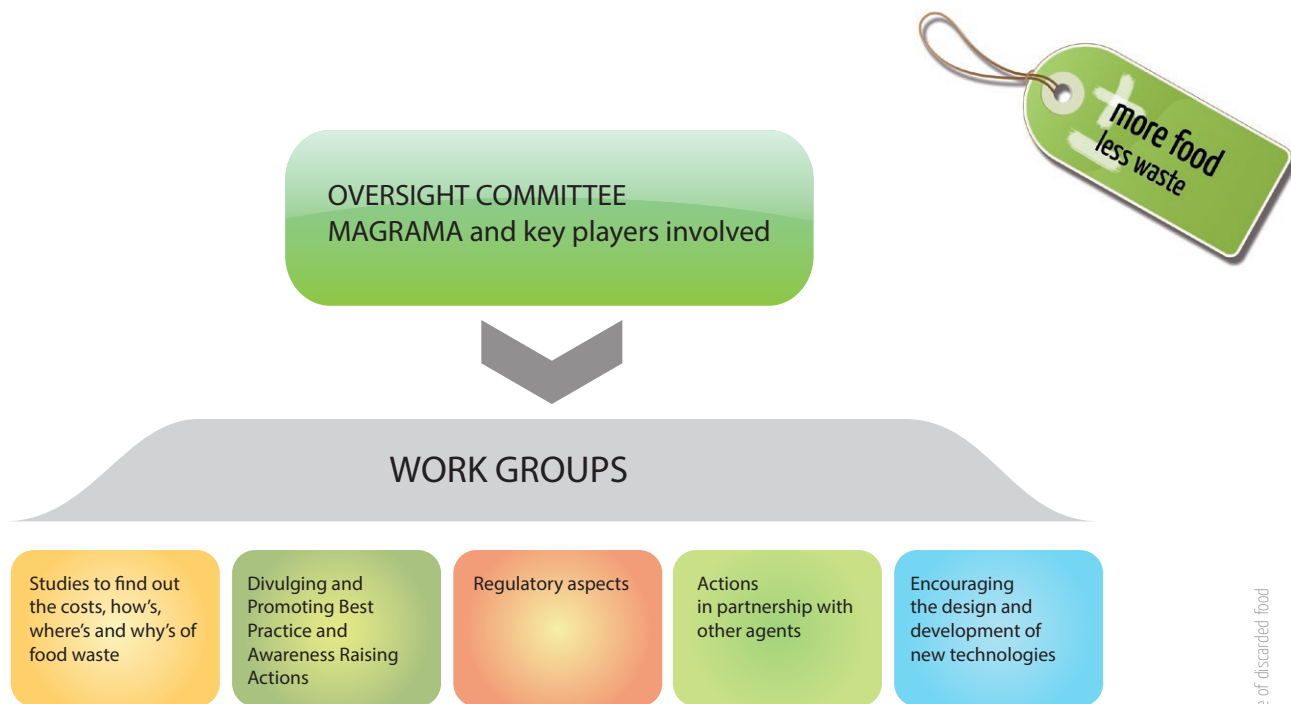
The **main functions** of the Oversight Committee shall be the following:

- Assessing the level of compliance of the objectives set forth in the Strategy.
- Setting up Work Groups for each of the Strategy's areas of action, to deal with one-off matters relating to the implementation of the actions envisaged in each area, and coordinating the actions undertaken by the Administration with those carried out by agents in the food chain within the framework of the Agreement "Food has no waste, use it".
- Proposing to the Ministry of Agriculture, Food and the Environment one-off modifications for the permanent updating of the Strategy in light of the progress of the Work Groups or studies submitted for the Committee's evaluation.
- Validating the applied methodology for determining food waste, and the objectives pursued by the research envisaged in the framework of the Strategy.

- Establishing the analysis model to be developed, and proposing indicators to monitor compliance with objectives, in accordance with those set forth in the Strategy.
- Redefining indicators to be established when results are revealed from partial evaluations of objectives.
- Analysing the technical and economic viability of the different recycling and prevention options proposed within the framework of actions to encourage the design and development of new technologies.
- Being aware of and analysing the result of research developed within the Strategy's framework.
- Preparing an annual report on actions carried out and progress made.
- Preparing an annual working program, taking into account the proposals made within the Committee, and work carried out within the framework of Working Groups.

The Working Groups may be created by the Oversight Committee, and will seek to set up discussion forums focussing on the work areas identified within the framework of the "More food, less waste" Strategy. Their aim is to develop proposals and ideas for the development of concrete actions aimed at the prevention and reduction of food waste and its recycling.

Within these groups, members will exchange experiences, draw up working documents aimed at achieving the objectives set forth in said Strategy, and carry out any technical analyses recommended by the Committee in their specific field.



7. Key players

Ministry of Agriculture, Food and the Environment
 Ministry of Sanitation, Social services and Equality
 Spanish Agency for Food Safety and Nutrition
 Autonomous Regions
 Primary production sector, foodstuff industry
 Distribution Sector
 Catering sector
 Consumer Associations
 Food banks
 NGOs and charities
 Other Public authorities



Bibliographic references

FAO. 2011. Global food losses and food waste. (<http://www.fao.org>)

FAO. 2012. The Footprint of Food Waste - Environmental audit of food waste and loss. Presentation of Concepts - the Department for the Management of Natural Resources and the Environment of the FAO. (<http://www.fao.org>)

European Commission. 2011. Communiqué from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. "Route map towards a Europe with efficient use of Resources" COMN(2011)571final. (<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0571:FIN:E S:PDF>)

European Commission. 2010. Research drawn up by BIO Intelligence Service "Preparatory study on food waste across EU 27"- (http://ec.europa.eu/environment/eussd/pdf/bio_food-waste_report.pdf)

European Parliament Resolution of 19 January 2012 on the avoidance of food waste: strategies to improve the efficiency of the food chain in the EU. (PE_ TA(2012)0014)- (<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=//EP//TEXT+TA+P7-TA-2012-0014+0+DOC+XML+V0//ES>)

MAAPRAT. 2011. Study: "Food loss and waste" (http://alimentation.gouv.fr/IMG/pdf/Pertesgaspillages_RAPPORT270112_cle02c35d.pdf)

NRDC. 2012. Study "WASTED: how America is losing up to 40 percent of its food from farm to fork to landfill" (www.nrdc.org/living/eatingwell/files/foodwaste_2pgr.pdf)

OCDE. 2011. Waste management in the food chain: Scoping paper. TAD/CA/APM/WP/(2011)7. (<http://www.oecd.org/tad/agriculture-ruralpoliciesandsupport/49260350.pdf>)

WRAP. 2010. Waste arising in the supply of food and drink to households in the UK. (<http://www.wrap.org.uk/content/waste-arising-supply-food-and-drink-uk-households>).

PNUMA. 2009. The environmental food crisis.

ALBAL. 2012. Study: Save Food, through the conservation of foodstuffs. (<http://www.albal.net/>)

MAGRAMA. 2012. Barometer of Trust in the Agri-food sector, expired food (Distributors). (<http://www.magrama.gob.es/es/alimentacion/temas/consumo-y-comercializacion-y-distribucion-alimentaria/barometro-del-clima-de-confianza-del-sector-agroalimentario/>)

MAGRAMA. 2012. Barometer of Trust in the Agri-food sector, expired food (Consumers). (<http://www.magrama.gob.es/es/alimentacion/temas/consumo-y-comercializacion-y-distribucion-alimentaria/barometro-del-clima-de-confianza-del-sector-agroalimentario/>)

Official Gazette N°181, Law 22/2011 of 28 July on waste and contaminated soil. (http://www.boe.es/diario_boe/txt.php?id=BOE-A-2011-13046)

HISPACOOP. 2012. Study on food waste in the home. (http://www.hispacoop.es/home/index.php?option=com_content&task=view&id=675&Itemid=92)

AECOC. 2012. Decalogue of best practices. Food has no waste, use it. (<http://www.aecoc.es/>)

GENCAT. 2012. Un consum responsable dels aliments. Propostes per a prevenir i evitar el malbaratament alimentari (www.gen-cat.cat)



Other reference works

CleanMetrics. 2011. The climate change impact of US food waste. (<http://www.cleanmetrics.com/pages/ClimateChangeImpact-fUSFoodWaste.pdf>)

Banco Mundial. 2011. Missing food: The case of postharvest grain losses in Sub-Saharan Africa (SSA)

Fondo Mundial para la Naturaleza y Red de investigaciones sobre los alimentos y el clima. 2009. How low can we go?

SIWI. 2008. Saving water: From field to fork. (http://www.siwi.org/documents/Resources/Policy_Briefs/PB_From_Filed_to_Fork_2008.pdf)

PNUMA. 2011. Waste: Investing in energy and resource efficiency. (<http://www.unep.org>)

Cuéllar, A.D. and Webber, M.E. 2010. Wasted food, wasted energy: The embedded energy in food waste in the United States. (<http://pubs.acs.org/doi/abs/10.1021/es100310d>)

Hall, K.D. et al. 2009. The progressive increase of food waste in America and its environmental impact.

Other sources

<http://www.thinkeatsave.org>
http://www.aesan.mspsi.gob.es/AESAN/web/cadena_alimentaria/subseccion/etiquetado_alimentos.shtml
<http://alimentation.gouv.fr/>
<http://www.hispacoop.es/home/>
<http://www.fao.org/publications/sofi/es>
<http://www.fao.org/news/story/es/item/74327/icode/>
<http://www.fao.org/docrep/014/i2330s/i2330s.pdf>
<http://www.fao.org/docrep/014/mb060e/mb060e00.pdf>

http://ec.europa.eu/food/food/sustainability/index_en.htm
http://ec.europa.eu/environment/eussd/pdf/bio_foodwaste_report.pdf
http://ec.europa.eu/food/food/sustainability/docs/tips_stop_food_waste_es.pdf
http://www.save-food.com/doc/Presentation_Sonesson.pdf
http://ec.europa.eu/dgs/health_consumer/information_sources/videos_fs_en.htm
<http://www.lasexta.com/videos/salvados/2012-diciembre-9-2012120700044.html>
<http://www.nrdc.org/food/wasted-food.asp>
http://www.nrdc.org/living/eatingwell/files/foodwaste_2pgr.pdf
<http://www.nrdc.org/food/files/wasted-food-IP.pdf>
<http://www.nrdc.org/laondaverde/>
<http://www.madrid.org>
<http://www.prewaste.eu/prevention-policies/itemlist/tag/food%20waste.html>
<http://www.wastedfood.com/>
<http://www.tristramstuart.co.uk/>
<http://www.sustainablefoodssummit.com>
<http://www.consumidores.coop/actuar-contr-el-desperdicio-de-alimentos>
<http://elconsumo.blogspot.com.es/2012/02/un-tercio-de-los-alimentos-producidos.html>
<http://gominolasdepetroleo.blogspot.com.es/2013/01/porque-tiramos-tantos-alimentos.html>
<http://www.bancomundial.org/temas/preciosalimentos/>
http://www.cruzroja.cl/publicaciones/descarga/307000-WDR2011-Summary_SP.pdf
http://www.imeche.org/knowledge/themes/environment/global-food?WT.mc_id=HP130007
http://issuu.com/oma-uab/docs/guia_alimentsuab_3



Annexs



"MORE FOOD, LESS WASTE" STRATEGY Program to reduce food loss and waste and maximise the value of discarded food

Annex 1. AECOC- Decalogue “Food has no waste. Use it.”

On 8 November 2012, the main companies in the Mass Consumer Products, Industry and Distribution sector, and associations representing them, signed a Decalogue in which they undertook to prevent waste and optimise food surplus.

This initiative, backed and implemented by the AECOC (Spanish Codification Association), under the slogan “**Food has no waste**”, is a pioneer in Europe and has the support of over 100 companies and the Ministries of Agriculture, Food and Environment, the Ministry of Sanitation and Social Services and the Spanish Federation of Food Banks (FESBAL).

The project’s **key objectives** are:

- Reducing waste along the whole food chain, with a working system that enables the measurement of the achievements made.
- Optimizing the re-use of the excess that is inevitable produced in the different links of the value chain.

The campaign “Food has no waste” springs from a consensus between over 100 companies from the mass consumption and HORECA sector, supported by associations (AECOC, ASEDAS, ACES, ANGED, FEHR, Foro Alimentario, CCAE, etc), public authorities having jurisdiction in the area (Ministry of Agriculture, Food and Environment and AESAN) and FESBAL (Food banks).

At the time this Strategy is being drawn up, over 206 companies and institutions have signed up to this Decalogue.

The points included in the Decalogue to be followed by signatory companies are:

- a. Strengthening cooperation and improving the exchange of information between producers, manufacturers, distri-

butors and public authorities to avoid generating a stock of products that will go unconsumed and will have to be destroyed/got rid of, through poor planning.

- b. Optimising, within companies themselves, efficiency mechanisms and practices that encourage adequate transport, handling and sale of products, so as to make use of their entire useful life and guaranteeing, at all times, their quality and food safety.
- c. Backing a collaborative climate between the different agents on the value chain to facilitate this efficient and essential global management so as to avoid unnecessary waste in the different links of the chain; when waste occurs, and as long as it is in the correct condition, it may be channelled to other uses, avoiding its destruction.
- d. Researching and innovating in techniques, sizes and models of packing and packaging better suited to current household needs and consumption habits.
- e. Working on improving communication with the consumer on conditions and recommendations for the conservation and consumption of foodstuffs.
- f. Establishing and/or strengthening measuring mechanisms for destroyed consumables recorded along the value chain, as well as carrying out regular reports on the progress reached to prevent this problem, collaborating with the MAGRAMA in those cases where synergies may arise.
- g. Encouraging practices that allow companies to maximize the use of “excess” generated throughout the chain (production of other types of products – animal feed, cosmetics, redistribution, etc.).

- h. Establishing the appropriate mechanisms so that the majority of this excess can be redistributed, and so that the redistribution of foodstuffs can be carried out in strict accordance, throughout the whole process, with food safety and hygiene standards.
- i. Sharing information with project oversight committees (formed by experts from the whole value chain and the Public Authorities) to test the progress of the project.
- j. Working and cooperating honestly, transparently and effectively, definitively, to encourage responsible production, marketing and consumption which helps to position the foodstuffs sector as a group which is “sensitive” to the needs and concerns of the country’s social and economic reality.

For the development of these measures, the AECOC foresees the setting up of Committees to deal with the key issues that affect the generation of food waste and loss. These committees must enable the identification of critical points, the search for solutions and measures, and their coordinated application between key players in the sector.

The planned committees are:

Preventative committee

The aim of said committee is to identify indicators and seek techniques to reduce waste.

Redistribution Committee

The aim of this committee is to seek ways of redistributing waste which is inevitably generated. For this, it envisages cooperation with FESBAL in the development of computer tools enabling the control of stocks in food banks, and knowledge of necessities, such as to optimise donations and the correct storage of food.

Legal committee

This identifies the regulatory hurdles preventing the reduction of food waste.



Annex 2: European Parliament Resolution of 19 January 2012 on the avoidance of food waste: strategies for improving the efficiency of the food chain in the EU (2011/2175 (NI))

The European Parliament,

In light of articles 191 and 192 of the Treaty of Lisbon, on the conservation, protection and improvement of the quality of health of people and the environment,

In light of European Parliament and Council Directive 2008/98/EC of 19 November 2008 on waste, and derogating from certain Directives (1),

In light of its Resolution, of 6 July 2010, on the Commission's Green Book on the management of bio-waste in the European Union (2),

In light of its Resolution of 7 September 2010 on fair income for farmers: improving the functioning of the food supply chain in Europe (3),

In light of its Resolution of 18 January 2011 on recognition of agriculture as a strategic sector in the context of food security (4),

In light of its Resolution of 23 June 2011 on the CAP until 2020: responding to future regional challenges, and concerning natural and foodstuff resources (5),

In light of its Resolution, of 5 July 2011, on a more effective and fairer retail market (6),

In light of the preparatory study on food waste in the EU of the 27 - Environmental Department, European Commission (2010),

In light of the FAO's study (2011) on food waste and loss worldwide,

In light of article 48 of its Regulations,

In light of the report from the Commission for Agriculture and Rural Development, and the opinions of the Committee for the Environment, Public Health and Food Safety and the Committee for the Internal Market and Consumer Protection (A7-0430/2001),

- a. Whereas each year in Europe more and more healthy and edible food is lost. –According to some estimates up to 50% throughout the agri-food chain before, in some cases, reaching the consumer and being converted into waste;
- b. Whereas a study published by the Commission calculates the annual generation of food waste in the 27 member States at some 89 million tonnes, that is to say 179 kilos per inhabitant, with large variations between countries and the different sectors, without counting agricultural food waste generated in the production process, or fish thrown back into the sea; by 2020 food waste will total 126 million tonnes (an increase of 40%) unless preventative measures are taken;
- c. Whereas the European Union is still home to 79 million people under the poverty threshold, that is to say over 15% of citizens receive an income lower than 60% of the average income in their country of residence; whereas of these, 16 million receive food aid from charities;

- d. Whereas alarming figures published by the FAO show that currently 925 million people worldwide are at risk of malnutrition, making the achievement of the Millennium Goals, including reducing poverty and hunger by half, even more remote;
- e. Whereas, according to the FAO's research, the predicted increase in population from 7 to 9 billion inhabitants requires a minimum increase of 70% of food by 2050;
- f. Whereas global grain production increased from 824 million tonnes in 1960 to almost 2.2 billion tonnes in 2010, with an annual increase of 27 million tonnes; if global agricultural production continues this trend, in 2050 the increase of grain production compared with today would be sufficient to feed the world population; in the meantime, bearing in mind the fact that losses after harvest make up 14% of total production, and another 15% is lost in distribution and domestic waste, three fifths of the total supplies necessary could be achieved by 2050 merely by stopping food waste;
- g. Whereas the reduction of food waste is a preliminary step to fighting global hunger, dealing with the increase in demand forecast by the FAO and increasing the population's nutritional level;
- h. Whereas less food waste would involve a more efficient use of land and better management of water resources, having beneficial consequences in the whole agricultural sector on a global scale, and making an important contribution to the fight against malnutrition in the developing world;
- i. Whereas food waste does not only raise ethical,
- j. economic, social and nutritional questions, but also has health and environmental consequences, because waste mountains make a significant contribution to global war-

ming and give off methane gas, whose greenhouse effect is 21 times greater than carbon dioxide;

- k. Whereas food waste by consumers in developing countries is minimum; in these countries, food waste is mainly due to financial and technical limitations in the whole food production chain;
- l. Whereas in Europe and North America, over past decades, when food production was abundant, food waste was not a political priority, leading to a general increase throughout the whole food chain; whereas in Europe and Latin America food waste is mainly generated in the retail and consumption phases, unlike developing countries, where losses are mainly in the production, harvesting, transformation and transport phases;
- m. Whereas, according to recent research, to produce a kilo of food, 4.5 kilos of CO₂ is emitted into the atmosphere; in Europe approximately 89 million tonnes of food wasted generates the equivalent of 170 tonnes of CO₂ per year, distributed between the food industry (59 million tonnes), domestic consumption (78 million tonnes) and others (33 million tonnes); the production of unconsumed food means the use of 50% extra water resources for irrigation, and the production of one kilo of beef requires 5 to 10 tonnes of water;
- n. Whereas the threat for food security is accompanied by different threats in wealthier economies, such as obesity, cardiovascular diseases and cancers associated with a diet excessively rich in fats and proteins, to the point that the global population of the over nourished is as numerous as the malnourished and starving;
- o. Whereas the increasing decline in production factors goes against the need for an increase in food supplies in the European Union;



- p. Whereas the support provided to developing countries in improving the efficiency of their agri-food chains can directly benefit local economies and the sustainable growth of said countries but also, indirectly, the global trade balance for agricultural products and the redistribution of natural resources;
 - q. Whereas there is a belief that the exchange of best practice at a European and global level, as well as support for developing countries, are essential to the fight against food waste on a global scale;
 - r. Whereas a growing number of Member states are implementing awareness raising and information initiatives aimed at the general public, on the causes and consequences of food waste, measures for reducing it and encouraging a scientific and civic culture aimed at the principles of sustainability and solidarity;
 - s. Whereas food waste is produced throughout the food chain, from the agricultural production chain to the storage, transformation, distribution, management and consumption stages;
 - t. Whereas the key players in the food chain have primary responsibility for food security and the fight against food waste in all areas it can be avoided;
 - u. Whereas in some member states, the sale of food at below cost price, depriving traders of the opportunity of selling unsold fresh food at the end of the day to consumers, and increasing waste in the food chain;
 - v. Whereas the recently adopted Regulation on food information provided to the consumer clearly establishes the fact that it is dangerous to consume products that have expired since this date;
 - w. Whereas the Top Level Forum on Improving the Functioning of the Food Chain, and the European Round Table on Sustainable Consumption and Sustainable development are working to improve efficiency and sustainability throughout the food chain;
1. It affirms that food safety is a fundamental human right realised through the availability, access, use and temporal stability of healthy, sufficient, adequate and nutritional food; it highlights the fact that global food production has been compromised by a series of factors, including the finite nature of natural resources faced with a growing global population and restricted access to food by some of the most vulnerable population groups;
 2. It asks the Council, the Commission, Member States and key players in the agri-food chain to urgently tackle the problem of food waste throughout the whole food and consumption chain, and to come up with directives on ways of improving the efficiency of the agri-food chain sector by sector, and supporting them, and urges them to include this issue as a priority in the European political agenda; it asks the Commission, in this context, to foment knowledge of the work under way in both the High Level Forum on Improving the Functioning of the Food Chain as well as in the European Round Table on Sustainable Consumption and Production, as well as in recommendations about how to combat food waste.
 3. It manifests its concern about the fact that every day a considerable quantity of food is thrown away, despite being perfectly edible, and about the environmental and ethical problems and the economic and social costs of food wastes, bringing about challenges in terms of the internal market for companies and consumers; it therefore asks the Commission to analyse the causes and consequences of the fact that each year in Europe, almost 50% of the food produced is thrown away, wasted and converted into waste, and to ensure the carrying out, in this context, of an exhaustive analysis of such

waste and an evaluation of its economic, environmental, nutritional and social repercussions; it also asks the Commission to take practical measures to cut food waste by half by 2025 and, at the same time, prevent the generation of bio waste;

4. It emphasises the fact that food waste has various causes: excess production, poor product packaging (poorly designed size or shape), damage to the product or packaging, marketing norms (problems with the aspect, or faulty packaging) and poor management of stock or inadequate sales strategies;
5. It asks the Commission to assess the impact of a coercive policy in relation to food waste; it seeks the adoption of coercive waste processing policy applicable to all links in the food chain, applying the principle of “those who pollute, pay”;
6. It considers that to limit food waste as much as possible, it is necessary to involve all the key players in the agri-food chain and specify the different causes of waste by sector; it accordingly asks the Commission to carry out an analysis of the whole food chain to detect the sectors in which most food is wasted, and decide which solutions can be put in practice to avoid it;
7. It urges the Commission to cooperate with the FAO to establish joint goals to reduce global food waste;
8. It observes the fact that the issue of food waste should be tackled from the viewpoint of efficient use of resources, and asks the Commission to present specific initiatives about food waste within the framework of the landmark initiative “A Europe which uses resources effectively”, so that this issue receives as much attention and raises as much awareness as the problem of energy efficiency, given that both are equally important for the environment and our future;
9. It asks the Commission to create specific objectives to prevent food waste for member States as part of the waste prevention objectives that Member states must meet before 2014, as is recommended by the 2008 Framework Directive on waste;
10. It considers it an imperative to reduce food waste throughout the whole food chain, from field to fork; insists on the need to adopt a coordinated strategy followed by specific action on a European scale, including the exchange of practical improvements with a view to improving coordination between member States with the aim of avoiding food waste and improving the efficiency of the food chain; it believes that it could achieve this by encouraging direct relations between producers and consumers and shortening food supply chains, asking all interested parties to assume greater shared responsibilities and intensify coordination with the aim of continuing to improve logistics, transport, stock management and packaging;
11. It asks the Commission, Member States and stakeholders to exchange best practices, combining knowledge obtained in the relevant forums and platforms, such as the EU Retail Trade Sustainability Forum, the Round Table on the Sustainable Production and Consumption of Food, the High Level Forum on Improving the Functioning of the Food Supply Chain, the Informal network of Member states called “the friends of sustainable development”, the Consumer Goods Forum, etc.;
12. When coming up with development policies, it asks the Commission to support actions aimed at reducing waste throughout the whole agri-food chain in developing countries, where there are inadequate and problematical production methods, post harvest management, infrastructures and transformation and packaging processes; it proposes the encouragement of modernisation of agri-



- cultural equipment and infrastructure for the purposes of reducing post-harvest losses and increasing the conservation period of foods; it also considers that improvements to efficiency in the agri-food sector could also help these countries achieve self sufficiency in terms of food;
13. It asks for a refocusing of support levels at an EU level in terms of the distribution of food products among the poorest people in the Union, as well as EU aid for the supply of milk and other dairy products to school children, and the program to encourage the consumption of fruit in school, with the aim of avoiding food waste;
14. It notes the confusion existing in terms of the definition of the expressions "food waste" and "bio waste"; it considers that generally "food waste" is understood to mean the range of food products disposed from the food chain for economic or aesthetic reasons, or due to an imminent expiry date, but which are perfectly edible and fit for human consumption and which, in the absence of possible alternative uses, end up being disposed of as waste, generating negative externalities from the viewpoint of the environment, economic costs and loss of profit for companies;
15. It notes that in Europe there is no harmonised definition for food waste; it accordingly asks the Commission to present a legislative proposal which defines the typology of "food waste" and, in this context, to also establish a definition of food waste for bio-fuels or bio-waste other than ordinary food waste, as used for energy purposes;
16. It believes that all Member States should allow traders to substantially reduce the price of fresh food below the production price when it is approaching the best before date, with the aim of reducing the quantity of unsold food thrown away, and offering consumers with limited income the possibility of purchasing high quality goods for cheaper;
17. It emphasises the fact that agriculture, by its very nature, is efficient in the use of resources and can lay a key and prominent role in the fight against food waste; it therefore urges the Commission to, in its next legislative proposals concerning agriculture, trade and distribution of food products, establish ambitious measures with this aim; it expects immediate joint action and investment in the field of research, science, technology, teaching, advice and innovation in agriculture for the purposes of reducing food waste and educating consumers and encouraging them to adopt more responsible and aware behaviour to prevent food waste;
18. It is of the opinion that the quality requirements applicable to external aspect, both those imposed by European and national legislation and those imposed by internal company rules, which determine the calibre and shape of fresh fruit and vegetables, give rise to a great deal of unnecessary rejection, increasing the quantity of wasted food; it asks stakeholders to recognise and explain the nutritional value of agricultural products with imperfect shapes or calibre, with the aim of reducing the volume of products disposed of;
19. It asks the Commission to draft directives concerning the application of article 5 of the Framework Directive on waste (2008/98/EC) which defines sub products, taking into account the fact that the lack of legal clarity in EU legislation with respect to the distinction between waste and non-waste may have a negative impact on the efficient use of sub products;
20. It asks the Commission, Member States, transformers and retailers to draft directives to combat the avoidable waste of food, and to make a more efficient use of resources in its sector of the agri-food chain, and to work constantly to improve transformation, packaging and transport with the aim of reducing unnecessary food waste;

21. It urges the Commission and Member states to foment the exchange of best practices and promote campaigns to raise public awareness of the value of food and agri-cultural products and the causes and consequences of food wastage, and ways of reducing it, this fomenting a scientific and civic culture focusing on the principles of sustainability and solidarity; it asks Member states to encourage the introduction of educational courses on food at all educational levels, including secondary, to teach, for example, how to store, cook and dispose of food, and in this way bring about better behaviour; it insists on the important role to be played by local authorities and municipal companies, as well as retailers and the media, when providing information and support to citizens in the prevention and reduction of food waste;
22. It applauds initiatives already adopted in various Member States with the aim of recovering, at a local level, products unsold and rejected throughout the whole food chain to redistribute them to groups under the minimum income level, and lacking purchasing power; it emphasises the importance of exchanging best practice in this matter between Member states as well as the importance of initiatives developed at a local level; in this respect it highlights the valuable contribution made by, on the one hand, volunteers that sort and distribute products, and on the other the professional companies that are developing systems and actions against waste;
23. It asks retailers to participate in programs to redistribute food to the underprivileged and adopt measures to enable the application of discounts on products close to expiry.
24. It warmly welcomes the work carried out by companies and professional associations in the public, private, academic and associative fields in relation to the design and application, on a European scale, of coordinated action programs to combat food waste;
25. It believes investment in methods that reduce food waste may give rise to a reduction in the losses suffered by agri-food companies and, therefore, lead to lower food prices, thus enabling better access to food by the poorest in society; it asks the Commission to firm up measures to enable the better participation of agri-food companies, wholesale markets, shops, distribution chains, catering facilities of public and private authorities, restaurants, public authorities and NGO in practices against waste; it supports the use of the Internet and new technologies to achieve these aims; it indicates, in this context, the importance of establishing a Knowledge and Information Community (KIC) concerning food, focused, among other things, on preventing food waste; it asks the Commission to ask the agri-food sector and interested parties to assume their share of liability in terms of the issue of food waste, in particular offering different portion sizes, and analysing the benefits of offering more loose-packed products and taking single person homes into account, with the aim of reducing waste and the carbon footprint of consumers;
26. It asks Member States to create economic incentives aimed at reducing food waste;
27. It underlines the fact that the emissions of greenhouse gases associated with the production, packaging and transport of food disposed of are unnecessary emissions; it observes that improving the efficacy of the food chain for the purposes of avoiding food waste and eliminating edible food waste is a key step to mitigating climate change;
28. It asks the Commission to examine possible modifications to rules governing the public contracting of group catering services, in such a way that, all other conditions being equal, to give priority in the awarding of contracts to companies that guarantee free redistribution among



- the poorer sections of society of unsold products, and which promote specific actions to reduce waste in previous links of the chain, for example giving preference to agricultural and agri-food products produced as close as possible to the place of consumption;
29. It asks the Commission to lead by example, tackling food waste in the institutions of the Union itself, and to adopt urgent and necessary measures to reduce the large quantity of food thrown away every day in the dining rooms of the different European institutions;
30. It asks the Commission to assess and encourage measures to reduce food waste in the first links of the chain, such as dual date labelling (best before date and sell before date), and discounted sales of food nearing the expiry date, or damaged; it indicates that the optimisation of packaging and its efficient use can play an important role in preventing the loss of foodstuffs through the reduction in the total environmental impact of products, by ecological industrial design among other methods, including methods such as the diversification of the size of packaging to help consumers acquire the right quantities and avoid the excessive consumption of resources, advice on how to store and use products, and the design of packaging to increase the useful life of products and keep them fresh, always ensuring the use for packaging and storage of adequate materials which are not harmful to health or the life span of products;
31. In partnership with Member States, it asks the Commission to issue recommendations on refrigeration temperatures based on trials that inadequate or unsuitable temperatures make foods prematurely unfit for consumption, and cause unnecessary waste; it indicates that harmonised temperature levels in the whole supply chain can improve the conservation of products and reduce waste of food transported and sold across borders;
32. It recalls the results of the Commission's study into the empowerment of consumers in the European Union (SEC(2011)469), according to which 18% of European consumers do not understand the phrase "best before"; it accordingly asks the Commission and Member States to clarify the meaning of dates on food labels ("Best before the", "Expiry date", "Sell by date") with the aim of reducing uncertainty about the edibility of food and providing the public with precise information, in particular so they understand that the phrase "Best before"... refers to quality, while the phrase "expiry date" refers to safety, such that consumers can take reasoned decisions; it urges the Commission to publish an easy to read manual on the use of products nearing the expiry date, ensuring both the safety of food donated and food for animals, and relying on best practise among stakeholders on the food chain with the aim, for example, of balancing supply and demand in a quicker and more effective way;
33. It asks Member States to stimulate and support initiatives aimed at incentivizing small and medium scale sustainable production linked to local and regional consumption and markets; it recognises that local markets are sustainable from an environmental viewpoint, and contribute to the stability of the primary sector; it asks that the future common agricultural policy assigns the necessary financing to encourage the stability of the primary sector, for example through direct sale and local markets, and all measures to promote the short or zero-kilometre supply chain;
34. It urges Member States to ensure the participation of small local producers and groups of local producers in public procurement procedures for the execution of specific programs, promoting, in particular, the consumption of fruit and dairy products in schools;
35. It urges the Council and Commission to proclaim 2014 as the Year against Food Waste, something which would

be an important informational and promotional tool in raising awareness of European citizens and drawing the attention of national Governments to this important issue, with a view to the allocation of sufficient funds to tackle the challenges to be met in the near future;

36. It entrusts its President with passing this Resolution to the Council and the Commission.



“More Food, Less Waste” Strategy



GOBIERNO
DE ESPAÑA

MINISTERIO
DE AGRICULTURA, ALIMENTACIÓN
Y MEDIO AMBIENTE