



LIFE17 GIE/IT/000579

LIFE FOSTER

RECOMMENDATIONS FOR POLICY MAKERS ON FOOD WASTE PREVENTION IN FOOD SERVICE INDUSTRY

*Action B3 - Guidelines at EU Platform on Food
Losses and Food Waste*

LIFE17 GIE/IT/000579

*Training, education and communication to reduce
food waste in the food service industry*

The opinions expressed in this Report are those of the authors and do not necessarily reflect the opinions of the European Commission, or any other organization mentioned. As a result, these will be verified before implementation of any of the recommendations contained herein.



TABLE OF CONTENTS

Introduction	3
The project's objectives	3
The Project's Strategy	3
life foster's tools	5
Lessons learnt.....	6
Recommendations for Policy Makers	7
Support for food waste prevention in food service businesses	8
Initial and continuous Vocational Education and Training for food service professionals	10
Food waste quantification systems adapted to different contexts and scopes.....	11
References	13
Annexes	14



INTRODUCTION

The present recommendations for policy makers represent the project deliverable “*Guidelines at EU Platform on Food Losses and Food Waste*” of Action B3 of “LIFE FOSTER - Training, education and communication to reduce food waste in the food service industry”, a project co-financed by the [EU Commission LIFE Programme](#) and implemented in Italy, France, Spain, and Malta. They are based on the lessons learnt by the organisations cooperating in the project and represent the project legacy, to mainstream its results.

THE PROJECT’S OBJECTIVES

The [LIFE FOSTER](#) project, that has been implemented between 2018 and 2022, had identified the following objectives to respond to the food waste challenge:

Raise individuals’ awareness of food waste as a major environmental and economic as well as social problem

State that vocational training supported by strong communication is a powerful instrument to modify behaviours towards more sustainable life and working patterns

Develop a culture of self-reflection through an objective measurement of the results, according to the pattern of continuous improvement, thus contributing to the achievement of Target 12.3 of SDG 12 – Responsible Consumption and Production¹.

Activate food service industry in adopting food waste prevention solutions and provide positive models to customers.

THE PROJECT’S STRATEGY

LIFE FOSTER offered innovative methods and tools for food waste prevention to the food service sector, based on vocational training and targeted communication to reduce the negative impact of a sector that generated 9% of the overall EU amount of food waste in 2020².

Concurrently, the project raised citizens’ awareness about the food waste challenge to favour a shift to more sustainable lifestyles.

¹ By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

² Source: [Food waste: 127 kg per inhabitant in the EU in 2020](#) presenting data from the [First EU-wide monitoring of food waste](#).



Undoubtedly, restaurants play a crucial role in inspiring and driving their customers to adopt substantial and responsible behaviour in relation to food consumption therefore LIFE FOSTER has developed specific communication tools to highlight their commitment to food waste prevention.

Furthermore, since only France, among the countries which were involved in the project, could provide reliable data on the food waste produced by this sector³, the project tackled the need for collecting data on food waste in food service businesses through reliable, customised monitoring systems, by implementing a web application that could be tested by both VET organisations and food service businesses.

LIFE FOSTER's strategy acted upstream of the food waste issue, through prevention measures, which tried to avoid both food surplus redistribution and leftovers to take home with the so-called "doggy/gourmet bag". The project considered food waste as a challenge of the food system that needed the collaboration of different types of organisations in a systemic vision which facilitates the interconnection between environmental, economic, and social dynamics.

Coherently with this vision, the project brought together different actors, each of them bearing specific knowledge and experience to activate change towards more sustainable practices in the food service sector. More specifically:

The academic support provided by [Università di Scienze Gastronomiche](#) (Italy) ensured the scientific soundness of the adopted knowledge base and encouraged the development of innovative responses.

Vocational training providers – [ENAIPT NET Social Enterprise](#) (Italy), [Agence nationale pour la Formation Professionnelle des Adultes](#) (France), [Confederación Española De Centros De Enseñanza](#) (Spain), and [Intitute of Tourism Studies](#) (Malta) – activated change in the youths and adults attending a shared training pathway in food waste prevention.

Business representatives – [Federazione Italiana Cuochi](#) (Italy) and [Malta Business Foundation-MBB](#) (Malta) – encouraged the transfer of sustainable practices to the businesses, which will increasingly have to reduce their environmental impact.

³ United Nations Environment Programme (2021). Food Waste Index Report 2021. Nairobi.

LIFE FOSTER'S TOOLS

To favour the adoption of a food waste prevention approach in food service industry, LIFE FOSTER delivered tools which yielded significant results in terms of food waste reduction, increased awareness of the relevance of this challenge and commitment to become active players in food waste prevention.

A [training model](#) to equip food service professionals in the prevention of food waste in their daily work. This model's flexibility/the flexibility of this model facilitates its customisation to different training beneficiaries and types of training – e.g. training of trainers, students (young or adults), and professionals, face-to-face and online training.

A [student support pack](#) toolbox to help both students in work placements and food service professionals to keep food waste monitored, through the adoption of the prevention solutions illustrated in Figure 1 below.



Figure 1: Food waste prevention solutions to adopt in food service industry



A [web application](#) to measure food waste-in the vocational training laboratories where work-based situations were simulated and in restaurants that were engaged, committed in measuring their ability to reduce food waste

A [Manifesto](#) for food waste prevention to collect the commitments of food service professionals and companies, trainers and VET organisations, students, and citizens interested in adopting more sustainable and responsible behaviours in food waste consumption.

LESSONS LEARNT

LIFE FOSTER's results and lessons learnt emphasised the importance of vocational education and training in activating correct practices for food waste prevention in work environments. They also indicated that a wicked problem like food waste needed a multistakeholder approach and systems thinking to find viable solutions.

The project underlined that measuring food waste – which can be activated in several ways – was very important. It recognised that digital tools are vital to identify, monitor and measure food waste. They help optimise processing operations, without losing the focus on monitor actions' efficiency and effectiveness by setting SMART objectives and KPIs. Since, however, no monitoring system could be easily applied to a learning context such as the laboratories simulating food service work environments, LIFE FOSTER implemented a specific tool to this purpose.

The core uniqueness and distinctiveness of the LIFE FOSTER project lay primarily on its food waste **prevention approach**, which was deemed to have significant impact in terms of food waste reduction. The project was a forerunner of this approach, because in 2017, when it was initiated, actions for food waste reduction were focused on reuse and recycling rather than on prevention. The “Waste framework directive”⁴, which shifted the focus from waste management to waste prevention, was issued later, in 2018.

LIFE FOSTER's strength resided at the development of a qualified and transferable food waste prevention model to **encourage the adoption of sustainable practices** in food service industry through **vocational training**, in a simple, sustainable, and replicable way.

The project's direct impact in the vocational training centres involved was **9.1% in food waste reduction** and **8.9% reduction in food waste economic value**. The project contributed to increase the awareness of food waste and the adoption of sustainable behaviour, by bringing numerous individuals

⁴ Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste.



closer to the global challenge of food waste – nearly 7,000 students and 400+ trainers, hundreds of professionals, and policy makers.

Particularly, trainers, students, and professionals could increase their awareness of the food waste problem through first-hand knowledge immediately applicable in everyday work and life which gave them the feeling of contributing to reduce a global environmental problem through simple actions performed every day. This was the most important legacy of the LIFE FOSTER project.

RECOMMENDATIONS FOR POLICY MAKERS

LIFE FOSTER's Recommendations take stock of the project's achievements and are the result of the partners' joint analysis as well as discussion with relevant stakeholders of Circular (Bio)Economy, food service business, Vocational Education and Training from local to European scale. Through their active involvement in experts' working groups, communities and platforms that were already drafting inputs for EU policies, the project consortium contributed to shape the EU debate on how to encourage the food value chain actors to favour sustainable and responsible food production and consumption, as well as to develop the full potential of bioeconomy and circular economy.

Like the Recommendations⁵ by the EU Platform on Food Losses and Food Waste, which propose specific actions to each group of stakeholders of the food value chain, LIFE FOSTER's recommendations to Policy Makers distinguish three main areas of action for policies favouring food waste prevention – rewarding measures to food service businesses that prevent food waste, preparing sector employees through vocational training in food waste prevention, and identifying monitoring systems that are reliable and customised to different types of organisations.

The adopted perspective of the food waste topic encompasses the EU's Food 2030 initiative, more specifically by considering the possible impact of food waste prevention on the bioeconomy scenario.

To this purpose the food service sector, especially the restaurant business, plays a prominent role in paving the way to changing the paradigm from food consumption to food valorisation.

Therefore, the following recommendations emerging from the project's experience address policy makers responsible for complementary policy measures – including food policies, bioeconomy and circular economy for food, vocational education and training, environment, business development, and agriculture. Moreover, as the recommendations aim to provide some practical suggestions, they are divided into three main groups related to a specific scope of action.

⁵ Recommendations for Action in Food Waste Prevention, Developed by the EU Platform on Food Losses and Food Waste, 2019

The key messages of the recommendations are summarised in Figure 2 here below, to indicate the three main areas of action when fostering food waste prevention in food service industry.



Figure 2: Recommendations approach

SUPPORT FOR FOOD WASTE PREVENTION IN FOOD SERVICE BUSINESSES

The active involvement of all food ecosystem stakeholders is necessary to move towards a real paradigm shift. To emphasise the relevance of the food waste challenge, recommendations on food waste prevention should be integrated into EU, national, and regional/local food policies.

Food affordability is critical to ensure access to food to everybody. In a world where millions of people have no sufficient food, this is obviously paramount. On the other hand, food is often considered as an asset, rather than a value. Consequently, the marketing policies emphasising food low prices, often induce customers to buy more than they need, thus leading to potential food wastage.

However, a growing trend is emerging among citizens who feel the utmost urgency to be active protagonist for supporting the planet's future and appreciate sustainable products and companies' engagement in sustainability.

Particularly, in the case of food service, the direct contact with customers can also trigger their ideas for changing their food consumption habits and adopt more sustainable and healthy lifestyles. However, engagement in food waste reduction has some costs that should be recognised. Consequently, LIFE FOSTER's first recommendation is to develop **reward mechanisms** that encourage companies to adopt food waste prevention solutions.

The definition of **European, national, and local incentives** to support businesses that are active against food waste should consider different types of actions, such as favouring the adoption of food waste monitoring tools, supporting staff's professional training in **food waste prevention**, and renewed professional profiles.



All relevant EU and national financial tools are crucial to support food waste prevention. Regarding **SMEs**, public authorities should implement targeted programmes in order to help these companies to integrate food waste prevention in their business models. Member States could establish national Food Waste Prevention Fund (financed both by the private and public sectors) in order to provide sustained financial support for national initiatives, projects and organisations in their fight against food waste.

Food waste prevention policies should include **awareness-raising campaigns** for food service industry that emphasise economic benefits for businesses through reliable data. Economic benefits are excellent arguments to encourage businesses to become actively engaged. However, benefits need to be measured through reliable and customised systems. For example, in the LIFE FOSTER's food waste monitoring tool (Food Waste Flow Balance) both environmental and economic dimensions of food waste were measured, therefore the reduction of loss can be assessed in terms of both “saved food” and “saved money”.

Food service businesses can substantially contribute to spread a food waste prevention culture among citizens if policy makers actively engage them into **information campaigns**.

Food service businesses are “**ambassadors**” of food waste prevention towards citizens, as they help to increase their customers’ awareness of this issue and encourage their active participation in tackling the problem. An effective example of sound-involvement is the LIFE FOSTER's **Manifesto for food waste prevention**, which could be subscribed by diversified targets, such as professionals, companies, trainers, students, schools, and citizens. To showcase their engagement the subscribers to LIFE FOSTER's Manifesto received a badge to be displayed in restaurants and schools.

Therefore, the introduction of an **eco-label** for food service businesses committed to reducing their food waste impact could also encourage a larger number of businesses and professionals to become “**food waste prevention ambassadors**” towards their customers.

Similarly, “food waste prevention ambassadors” could be rewarded through **dedicated restaurant rankings**. Alternatively, existing restaurant rankings and chefs’ competitions could incorporate food waste prevention among their evaluation indicators.

Finally, policy makers should facilitate further development of private, as well as public-private, food-sharing initiatives with the proper financial support and streamlined lighter bureaucracy which will help in managing the **food surplus**.



INITIAL AND CONTINUOUS VOCATIONAL EDUCATION AND TRAINING FOR FOOD SERVICE PROFESSIONALS

Education policies should favour the incorporation of food sustainability topics – including food waste prevention – into school programmes as part of education for sustainability, as supported with the Council Recommendation of 16 June 2022 (2022/C 243/01) to ensure that positive impacts will be achieved across multiple outcomes. The Council Recommendation aims to intensify and strengthen efforts to support education and training systems in adopting green transition and sustainable development measures, so that learners of all ages and backgrounds have access to equitable, inclusive and high-quality education and training on sustainability, climate change, environmental protection and biodiversity, taking due account of environmental, social and economic considerations⁶.

On the side of vocational education and training, although many EU Member States have made significant progress in implementing learning policies and programmes to support the green transition and promote learning for sustainable development, efforts need to be continued and intensified. Policies and practices for such learning should be further stimulated and supported. It is necessary to recognise the need for interconnected learning between the environmental, economic, and social pillars of sustainable development, while paying special attention to the environmental pillar⁷. The LIFE FOSTER project fits precisely into this need for interconnected learning between environment, economy, society, and sustainable development.

Initial and continuous vocational education and training play a primary role in contributing to change the mindset related to food waste prevention. Food loss and food waste reduction should be integrated into school education and professional training programmes, both in the public and private sectors, for initial as well as continuous VET and programmes of up-skilling and re-skilling. Education institutions should promote the value of food and work to shift social norms so that wasting food is no longer acceptable.

On the other hand, companies should make food waste prevention a business priority, with clear KPIs, encouraging the training of personnel as well as raising awareness within the organisation on how to prevent food waste at all levels of operation (e.g. production, marketing, procurement, logistics etc.).

LIFE FOSTER showed that sound scientific knowledge (coming from the academic world) combined with a “hands-on” approach (coming from VET providers and business organisations) is successful. Therefore, policies and funding programmes should foster collaboration between these types of organisations.

⁶ COUNCIL RECOMMENDATION of 16 June 2022 on learning for the green transition and sustainable development (2022/C 243/01) pg4

⁷ COUNCIL RECOMMENDATION of 16 June 2022 on learning for the green transition and sustainable development (2022/C 243/01) pg1



VET centres should be considered to trigger behavioural changes in the workplace and changes of culture when dealing with environmental issues. The practical orientation, the strong connection between VET organisations and businesses, their rootedness in the territory and their relations with local institutions, make vocational training a powerful lever for the **practical awareness of individuals**, as the project showed.

To favour work forces' preparedness in sustainability the inclusion of **food waste prevention as a transversal competence** in food service industry curricula is essential. The introduction of the certification of a **competence** for food waste prevention and the definition of relevant micro-credentials would lead to training, retraining, and upskilling of young people as well as employed/unemployed adults who are undertaking a career in food service industry.

Additionally, the didactic should encourage the adoption of **food waste monitoring tools** in the training of food service professionals, to develop a culture of objective measurement of one's own results.

Additionally, the introduction of an **ecolabel** for VET providers engaged in developing a competence in food waste prevention could lead to spread more up-to-date training curricula favouring the adoption of more sustainable behaviours in food service industry.

Finally, food waste prevention can be included in all school and VET curricula as part of **programmes on citizenship**. In the LIFE FOSTER's experience, young trainees showed great interest in becoming active in food waste reduction. To this aim, favouring peer learning and competitions could incentivise students' personal engagement.

FOOD WASTE QUANTIFICATION SYSTEMS ADAPTED TO DIFFERENT CONTEXTS AND SCOPES

Data collection on food loss and food waste is one of the main challenges to face when setting food waste reduction targets and analyse progress towards net zero food waste. The importance of measuring food waste was already emphasised in the 2018 waste framework directive and is recommended by the [EU platform on food losses and food waste](#) (EU FLW)⁸.

Undoubtedly, for data collection, indicators need to be created and monitored regularly. The identification of systems providing reliable data is critical to define the objectives and targets to reach. Finally, policies need to be constantly reviewed and renewed to improve their efficacy – amongst others, challenges concerning food safety and data protection still need to be solved, considering current regulations.

⁸ [Recommendations for Action in Food Waste Prevention Developed by the EU Platform on Food Losses and Food Waste](#), 12 December 2019



The European Platform on Food Loss and Food Waste⁹ offers much information as well as guidance, and fosters multistakeholder collaboration at European level, but it has no similar national initiatives to connect with. At national level, data collection needs to find a suitable place: a national hub or a gateway providing access to country data on food consumption and food waste which gathers contributions from stakeholders of the food value chain. To develop national initiatives, a successful example to analyse is the relation between [ICESP](#) (Italian Circular Economy Stakeholders Platform) and [ECESP](#) (European Circular Economy Stakeholder Platform).

Technological innovations, related to the stages of the food supply chain are at the core of the reduction of food waste. While smart ordering systems for retail and radio frequency identification technology (RFID) for data collection at the distribution stage are widely adopted nowadays, several innovations such as smart labels for packages, smart refrigerators, smart shopping trolleys and smart rubbish cans represent technologies in development and deployment. Therefore, governments at European and national level should encourage research programmes, considering the country-specific conditions. This should also include piloting studies with the testing of devices on an experimental basis.

LIFE FOSTER's experience proved that food waste monitoring helped to increase the awareness of the quantity of food waste generated in the business-as-usual practice and stimulated individuals to adopt food waste prevention solutions. Certainly However, to effectively measure the improvement, a reliable baseline had to be set through suitable monitoring measurement tools and to this aim, the project implemented its web application.

Anyhow, the adoption of food waste monitoring tools and business investment should be encouraged through incentives. Concurrently, information campaigns on the adoption of food waste monitoring systems should underline economic benefits along with and improved business management.

Food waste prevention policies should also encourage research and implementation of **different food waste monitoring systems** to meet encounter the needs of different businesses, ranging from small family businesses to international restaurant chains.

Finally, food waste prevention policies should encourage the adoption of food waste monitoring systems as part of an **overall strategy for food waste reduction** implemented by a food service business.

⁹ https://food.ec.europa.eu/safety/food-waste/eu-actions-against-food-waste/eu-platform-food-losses-and-food-waste_en



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ANNEXES

Annex I – The EU dimension

Annex II – Italian national law on food wasting prevention

Annex III – French national law on food wasting prevention

Annex IV – Spanish national law on food wasting prevention

Annex V – Maltese national law on food wasting prevention



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TABLE OF CONTENTS

<i>Annex I – The EU dimension</i>	<i>3</i>
Premise	3
The EU framework	3
<i>Annex II – Italian National Law on Food Wasting Prevention</i>	<i>7</i>
Some relevant facts and figures	7
A brief international framework overview	8
The Italian context: a background	9
Law n.166/2016 and previous regulations	10
<i>Annex III – French national law on food wasting prevention.....</i>	<i>15</i>
Food wasting: a global challenge	15
French national approach towards food wasting prevention	15
The national pact against food waste	16
Regulatory changes.....	17
The national food plan (PNA)	18
The territorial dimension of the fight against food waste	19
Conclusions	19
References	20
<i>Annex IV – Spanish national law on food wasting prevention</i>	<i>21</i>
Food wasting: a global challenge	21
Spanish national approach towards food wasting prevention.....	21
Regional strategies towards food wasting prevention	24
Conclusions	27
Bibliography	27
<i>Annex V – Maltese national law on food wasting prevention</i>	<i>29</i>
Premise	29
Current State of Play	29
Potential General Measures to Reduce Food Waste (relevant to food service)	30
Commercial Waste Measures to be introduced	30



ANNEX I – THE EU DIMENSION

PREMISE

Given the transnational dimension of LIFE FOSTER, the present Annex I provides a brief overview the European policy framework considered during its implementation. To provide more context to implemented actions, the following Annexes II-V add information on major relevant policies in Italy, France, Spain, and Malta.

THE EU FRAMEWORK

The EU and Member States are committed to meeting UN Sustainable Development Goals (SDG), adopted in September 2015¹. Among them, SDG 12 on “Responsible production and consumption” contains target 12.3, whose aim is “To halve per capita food waste at the retail and consumer level by 2030 and reduce food losses along the food production and supply chains”. This target calls for a change in individuals’ behaviours – more aware food purchase and preparation, and mindful use of natural resources.

Food waste prevention is embedded in the Commission’s “Circular economy action plan” (CEAP, March 2020)², which represents one of the main building blocks of the European Green Deal, Europe’s agenda for sustainable growth. Among other, CEAP encourages sustainable consumption and introduces legislative and non-legislative measures targeting areas where action at the EU level brings real added value³.

In the “Waste Framework Directive” (WFD, May 2018)⁴ amending Directive 2008/98/EC⁵, the Commission specifically states:

“Member States should take measures to promote prevention and reduction of food waste in line with the 2030 Agenda for Sustainable Development, adopted by the United Nations (UN) General Assembly on 25 September 2015, and in particular its target of halving per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses, by 2030. Those measures should aim to prevent and reduce food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants

¹ UN General Assembly, Transforming our world: the 2030 Agenda for Sustainable Development, 21 October 2015, A/RES/70/1, available at: <https://www.refworld.org/docid/57b6e3e44.html> [accessed 4 January 2023]

² European Commission, Directorate-General for Communication, *Circular economy action plan: for a cleaner and more competitive Europe*, Publications Office of the European Union, 2020, <https://data.europa.eu/doi/10.2779/05068>

³ Source https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en#actions

⁴ DIRECTIVE (EU) 2018/851 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 amending Directive 2008/98/EC on waste

⁵ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives



and food services as well as in households. In order to contribute and ensure to be on track towards the attainment of the UN Sustainable Development Goal, **Member States should aim to achieve an indicative Union-wide food waste reduction target of 30 % by 2025 and 50 % by 2030**. Having regard to the environmental, social and economic benefits of preventing food waste, Member States should establish specific **food waste prevention measures, including awareness campaigns** to demonstrate how to prevent food waste, in their waste prevention programmes. Member States should **measure progress** made in the reduction of food waste. To measure that progress and to facilitate the exchange of good practices across the Union both between Member States and between food business operators, a common methodology for such measurement should be established. Based on those methodologies, **reporting on food waste levels** should take place on an annual basis.”

Targets on food waste reduction are also relevant under the EU Farm-to-Fork Strategy. Issued in 2020, the Farm to Fork Strategy, which is at the heart of the EU Green Deal, “addresses comprehensively the challenges of sustainable food systems and recognises the inextricable links between healthy people, healthy societies and a healthy planet.”⁶

Article 9 of WFD states that Member States monitor and assess the implementation of their food waste prevention measures and by the end of 2023, the Commission “... shall examine the data on food waste provided by Member States ... with a view to considering the feasibility of establishing a Union-wide food waste reduction target to be met by 2030 on the basis of the data reported by Member States ...”. The “Inception Impact Assessment” about a “Proposal for a revision of Directive 2008/98/EC on waste – part on food waste reduction target” and in view of an initiative by the Commission to be issued in Q2 2023 explains that the “objective of the legally binding target would be to ensure that Member States take ambitious action to reduce food waste in their respective territories”⁷. The proposal would define the level of reduction for different stages of the food supply chain, but each Member State could choose the most effective measures considering its specific national framework situation. These actions could include, amongst others:

- **Improving knowledge and awareness** on levels and impacts of food waste
- Influencing attitudes and behaviours that lead to food waste and encourage uptake of **food waste prevention measures along the food chain**, from production through consumption
- Encouraging **change in the food value** chain toward less wasteful practices – e.g. cooperation between actors of food supply chain, education, awareness raising and other measures to elicit behavioural change, assessment of the effectiveness of food waste prevention initiatives to facilitate uptake of evidence-based solutions.

The effects of setting targets to food waste produced by Member States are expected to generate positive economic and social impact.

⁶ From the Farm to Fork Strategy Action Plan, 2020

⁷ “Inception Impact Assessment” about a “Proposal for a revision of Directive 2008/98/EC on waste – part on food waste reduction target”



With specific regard to food services, the EC expects that “initial costs of introducing new techniques and methods will be offset by cost savings on food purchase and waste treatment. However, the timespan for such an offset is hard to assess and may depend on the scale of operations”⁸.

Although measurement of food waste will become crucial to meet the targets, the findings from the Food Waste Index Report 2021 issued by UNEP reveal that there is strong need for reliable measurement tools, especially for the Food service sector in Southern Europe. “Despite political commitments (e.g. SDG Target 12.3) and legal guidance (aforementioned 2018 revision of Directive 2008/98/EC), Member States’ responses to food waste have been uneven and are not sufficient to address the risk of prolonged environmental damage, and the consequent economic impacts for consumers, enterprises and society as a whole. The variation in efforts across Member States as regards reduction of food waste generation indicates a need for more coordinated and uniform measures at EU level to drive the progress at the breadth and pace required to achieve SDG target 12.3. Moreover, reduction of food waste is needed to achieve climate neutrality in the EU by 2050, including the intermediate target of an at least 55% net reduction in greenhouse gas emissions by 2030”⁹.

Furthermore, the Bioeconomy Strategy (COM/2018/673) aims at the deployment of a sustainable European bioeconomy that “can turn bio-waste, residues and discards into valuable resources and can create the innovations and incentives to help retailers and consumers cut food waste by 50% by 2030”.

Finally, in December 2019 the EU Platform on Food Losses and Food Waste issued *Recommendations for Action in Food Waste Prevention*, where it defined specific recommendations for action in hospitality and food services. Interventions “should focus on bridging the knowledge gap on food waste through the development of guidance, making use of cooperation with third parties to build further knowledge and engaging both businesses and customers”.

More specifically, the EU Platform recommends:

- i. EU and national public authorities, trade associations and researcher to
 - a. provide support to small businesses to increase their knowledge and capacity-building
 - b. identify solutions to the logistical challenge linked to the collection of small quantities of food in multiple locations
- ii. Trade associations to
 - a. motivate and engage businesses to adopt measures against food waste in their operations
- iii. Food service businesses, trade associations, and third parties designing food waste reduction actions to monitor actions’ efficiency and effectiveness by setting SMART objectives and KPIs

⁸ “Inception Impact Assessment”

⁹ Idem



- iv. Food service businesses, national public authorities, consumer and environmental NGOs, consumer organisations to help to influence consumer expectations/behaviour to reduce and prevent plate waste.

ANNEX II – ITALIAN NATIONAL LAW ON FOOD WASTING PREVENTION

SOME RELEVANT FACTS AND FIGURES

Some data concerning food waste in Italy can be used as a starting point to reflect about the current Italian regulatory system on food waste prevention. In particular, it can be noted that:

- Worldwide, an estimated 931 million tonnes of food, or 17 percent of total food available to consumers in 2019, went into the waste bins of households, retailers, restaurants and other food services
- In Italy each year **67 kg of food per inhabitant go to waste**, 4 million tons in total¹⁰
- Every Italian family wastes a quantity of food worth 4.91 each week, totalling 6.5 billion. The vast majority of **food waste happens at household level**¹¹
- As for the socio-economic profile of the families wasting the most, on average they are in southern part of the country, they come from the lower-income parts of the population, living in small towns and with children¹²
- The majority of Italians see with favour the possibility of **making food donations mandatory** for supermarkets and other food-related businesses in light of the recent rise of the population at risk of poverty since the beginning of the COVID-19 pandemic¹³

From this data, as well as from similar ones at a global level, the necessity not only for regulatory interventions, but also for a shift of cultural paradigm, becomes evident. The inequalities in the access to food safety and food security both at national and at a global level are deeply rooted in a socio-economic system which sees food as an economical asset as every other, when, in fact, food is a basic human right and holds a much deeper social, cultural, and ethical value¹⁴. It is starting from this perspective that the whole regulatory aspects concerning the prevention and the recovery of food waste need to be reimagined.

¹⁰ From the data available for 2021 by Coldiretti (the major Italian agriculture sectoral association)

¹¹ <https://www.sprecozero.it/comunicati-stampa/spreco-alimentare-in-italia-vale-quasi-16-miliardi-e-quasi-12-nelle-nostre-case-presentati-alla-fao-stamane-i-dati-waste-watcher-in-occasione-della-giornata-naz-di-prevenzione-dello-spreco-alimen/#:~:text=ROMA%20%E2%80%93%20Vale%20lo%200%2C88,del%20totale%2C%20a%20fronte%20dello>

¹² <https://www.creditocooperativo.it/app/uploads/2021/02/IL-CASO-ITALIA-WW-2021.pdf>

¹³ <https://www.creditocooperativo.it/app/uploads/2021/02/IL-CASO-ITALIA-WW-2021.pdf>

¹⁴ https://www.slowfood.com/wp-content/uploads/2021/01/ing-position-paper-foodwaste_compress-1.pdf

A BRIEF INTERNATIONAL FRAMEWORK OVERVIEW

The current Italian regulatory system on food waste is rooted not only in previous Italian regulations on the subject (or related matters), but also in the international context, both at the European level and at the level of the United Nations.

The key document at the UN level is, evidently, represented by the **2030 Agenda** and the Sustainable Development Goals, with particular regard to **goal n.12 Responsible consumption and production**: ensure sustainable consumption and production patterns. Most specifically, the target concerned under goal 12 is target 3: *“By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.”*.

The other goals concerned are: goal n.1 No Poverty, n.2 Zero hunger, 9 Industry, Innovation and Infrastructure, 10 Reducing Inequality, 11 Sustainable Cities and Communities, 13 Climate Action, 14 Life Below Water, 15 Life On Land. Particularly active in the sector, for obvious reasons, is the FAO – Food and Agriculture Organization of the United Nations, with its monitoring, awareness raising, and prevention activities. In fact, the definitions of Food Loss and of Food Waste are from FAO, as well as a good share of the most up-to-date literature on the topic¹⁵. On September 29th, 2020 FAO established the first International Day of Awareness of Food Loss and Waste

At the EU level, the regulatory interventions of the past years in this sense need to be contextualized in a general shift of paradigm to a circular economy. In 2014 the European Commission, in a communication to the European Parliament, stated clearly that the European Union should be transitioning in the direction of a new model of economic growth, in which the paradigm is to keep the added values in products as long as possible and eliminate waste¹⁶.

Before that, the **European Parliament released a declaration in 2011**¹⁷ with the eloquent title **“Urgent call to reduce food waste in the EU”**, in which calls for a drastic reduction in food wastage by 2025, indicating the path via a better education to avoid waste, proper labelling and packaging, and public procurements to favour those entities which donated the excess to food banks or to those in need. All suggestions that are peculiarly interesting also in the light of the approach the Italian legislators chose.

A central piece of legislation related to food waste and food donation at the EU level is the **General Food Law (Regulation EC/178/2002)**, since it covers all stages of food production and distribution, including the aspect of food donation. It is listed in Article 3.8 as “placing on the market” operations: basically, it is stated here that food business operators have to comply with the same rules whether

¹⁵ <https://www.fao.org/platform-food-loss-waste/resources/detail/en/c/1378978/>

¹⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52014DC0398>

¹⁷ 23rd November 2011



they are selling or donating food. From this article every other European and member states intervention on food donation has stem. But the very same Law could constitute a limit to donation, since the food safety and liability rules are so strict that it often led producers and retailers to be reluctant to donate and more driven to dispose since any problem deriving from the donated exceeding could result in both reputation damage and liability. Other relevant general EU regulations regarding these profiles are: EU Commission's "Hygiene package" (Regulations n.852/2004; n.853/2004; n.854/2004; Directive 2004/741/EC) and Regulation EC 1169/2011 (on the provision of food information).

It will be seen later on the importance of the **Waste Framework Directive** (directive 2008/98/EC), which lays down some basic concepts and definitions related to waste management, and, most importantly, defines the five-step "**waste hierarchy**", establishing an order of preference for managing and disposing of waste, which is extremely relevant in terms of food donation, as it will be seen later on.

In 2014 the European Economic and Social Committee published a **Comparative Study on EU Member States' legislation and practices on food donation**¹⁸. The research is particularly interesting in this context since it focuses on the fight to food waste particularly concerning the profile of food donation, regarded as "the key lever in European solutions to food waste and food poverty". It provides an overview of the national regulations of several EU member states (including Italy), taking into consideration also the legislative barriers and opportunities to the donation. It is worth mentioning also because food donation is the approach chosen for the Italian regulations regarding food waste, as it will be further explained in the following paragraphs.

Many more documents and recommendations could be mentioned here for both the EU and UN sides; however, it is not the purpose of this document to be exhaustive concerning these profiles, since the function of their presence here is only to give some keys to a better understanding of the choices underlying the direction taken in this area by the Italian legislator.

THE ITALIAN CONTEXT: A BACKGROUND

The **world EXPO of 2015 in Milan**, for which the theme was "Feeding the planet, energy for life" has represented an important moment in the debate on the issue of the sustainability of food consumption patterns not only for Italy, but for the rest of the world as well, as 137 countries and over 22.2 million visitors took part in it. Despite the numerous controversies over inequalities that were also evident here and the various lights and shadows associated with the event, there is no doubt that EXPO had the merit of massively bringing attention to the ethical, social and environmental issues related to the right to access to food and water. In this sense it is worth mentioning the document which represents the moral legacy of the EXPO: Milano Charter.

¹⁸ <https://www.eesc.europa.eu/sites/default/files/resources/docs/qe-02-13-506-en-c.pdf>



The **Milano Charter** was presented in the months preceding the opening of EXPO: written with the contribution of over 5,000 people collected through public thematic tables, it represents a collective manifesto aiming at raising awareness about the theme of EXPO. The core theme is finding a solution to solve the problem of food insecurity and malnutrition. The path that led to its drafting had started further back, with the Milan Protocol, drawn up in 2012 by the Barilla Foundation Centre for Food and Nutrition, and the preliminary works started in 2013, involving Italian institutions, unions, enterprises, and ministries, as well as UN and EU bodies. Its main themes are the right to food, the fight on food and water waste, and environmental sustainability.

It lists rights and obligations for citizens, enterprises, associations, governments, and institutions to tackle the root causes to the lack of access to healthy, nutritious, and sufficient food, which is regarded as a fundamental human right along with clean water and energy sources. It recognizes the cultural and social value of food, and it forbids its use as a mean of political pressure. Citizens, civil society, businesses, and institutions have been requested to act in synergy against malnutrition, to promote equal access to natural resources, to grant a responsible and sustainable management of food production and distribution. In the charter, food waste is regarded as one of the main root causes to these inequalities and calls the citizens who subscribe it to act responsibly towards food, by consuming only necessary quantities and to store the excess to prevent it from going to waste.

When it was presented to the UN general secretary Ban Ki-Moon at the end of EXPO (16th October 2015), the Charter had reached over 1.5 million subscribers, including those of public figures such as Nobel Prize winners and heads of state like Amartya Sen, Sergio Mattarella, Angela Merkel, Dilma Rousseff, Shirin Ebadi, and many others.

However, the document did not come without any controversy, even among those who contributed to write it. Relevant contributors to the writing such as Caritas Internationalis and Slow Food did not sign the final version, as they saw an invalidating lack of precise objectives to it. Other critics saw as contradictory the presence in the preparatory panel of a multinational society such as Barilla, fully benefitting from the current food supply system; while others point out the absence in the document of crucial topics such as OGM crops, land grabbing in developing countries, and financial speculation on raw materials.

What remains as a fixed point is that the Charter has helped to bring the attention of the international community to these fundamental issues, animating and guiding the debate and challenging global food systems and their dramatic consequences on both people and natural resources.

LAW N.166/2016 AND PREVIOUS REGULATIONS

As it can be easily noted from a quick view to the background context, the issue of fight to food waste has been relevant in the Italian public debate long before EXPO 2015. This also applies to the Italian regulatory system, especially with regard to the aspect of **redistribution of surpluses to those in need**: in this sense, an important precedent to the current legislation is represented by **law no.155 of 2003**



titled “**Discipline of food distribution for social solidarity purposes**”, the so called “*Legge del Buon Samaritano*”.¹⁹

Until this rule was enacted, school and company canteens, supermarkets, and restaurants were obliged to destroy surplus food. According to this law, instead, they could donate the exceeding products to non-profit organisations, without having to guarantee about the proper storage, transport, and use of the food. In fact, receiving organisations are listed here as the final consumers of the products, with the effect of cutting the complex bureaucracy that often actually prevented them from receiving and distributing the food, as the time to act effectively to help those in need is chronically short. This approach has been regarded as a best practice in the previously mentioned *Comparative study on EU member states’ legislation and practices on food donation*.

This law is based on the principle of free choice and free assumption of responsibility by those who decide to get involved: in the absence of obligations on guaranteeing the safety of the products along the entire route, it is up to the organisations to adopt common good practices to ensure that the food arrives in appropriate conditions to the recipients.

It will be clear later in this paragraph how this law paved the way for the current rules on the subject, but to get there it is necessary to describe two other preliminary interventions.

One of these is the **National waste prevention programme**²⁰ promoted by the Ministry of the Environment and Protection of Land and Sea in 2013: it has been adopted in compliance with the EU Directive 2008/98, and it defines “prevention” as those measures to be adopted before a product becomes waste, in order to reduce the quantity of waste and its negative impact on human health and the environment. The waste reduction clearly also regards the food production and consumption sectors. In the programme, a number of general and transversal measures are envisaged to achieve the objectives of reducing the volume of waste, which depends not only on production factors, but also on socio-economic factors: sustainable production, Green public procurement, re-use, fiscal and regulatory instruments, information and awareness raising, as well as the promotion of research. As will be seen, these general principles are integrated in the structure of the current system.

Another intervention worth mentioning is the **National plan for the reduction of food waste**²¹, which was also proposed by the Ministry of the Environment in 2013: Here, special attention was paid to the issue of raising awareness on food waste and the appropriate preventive measures to be taken even at household level. To this purpose, a work group composed also by Italian public personalities was created, aiming at reaching the broader public to spread awareness and to promote good practices. The first initiative in this sense has been the establishment of a **National Day for food**

¹⁹ <https://www.gazzettaufficiale.it/eli/id/2003/07/01/003G0174/sg>

²⁰ <https://www.mite.gov.it/comunicati/presentazione-del-programma-nazionale-di-prevenzione-dei-rifiuti>

²¹ <https://www.mite.gov.it/pagina/spreco-alimentare>



waste prevention (5th of February), in the context of a broader communication campaign entailed in the plan. Another fundamental instrument was represented by a constant monitoring of results.

The path that began with EXPO and the other aforementioned interventions saw a point of arrival **with Law 216/2016** (known as the Gadda Law) “**Dispositions concerning the donation and distribution of food and pharmaceutical products for the purposes of social solidarity and limiting waste**”.²²

As can already be seen from the title, the focus of the law is the redistribution of surplus food (but also medicines and other products) for solidarity purposes. As stated in Article 1, the aim of the law is to reduce waste at all stages of production and distribution of these products. In particular, the priority objectives are:

- **Recovery and donation of surplus food** and pharmaceutical products: following the food recovery hierarchy the priority is human consumption (and only once the food has been given away to people in need can it be used for animal consumption and, eventually, composted).
- **Reuse, recycling and reduction of negative impacts** on the environment and natural resources
- Achieving the objectives of the aforementioned national plans for the prevention of waste and food waste
- **Research and awareness-raising activities** aimed at both consumers and institutions.

The heart of the law is a bureaucratic simplification scheme for the collection and donation of food and food surpluses. Products can be donated free of charge, without forms to be filled out in advance (previously it was necessary to communicate recipients and products offered five days before), only filling out a report at the end of the month. In this way, it can be donated: food in good condition beyond its preservation date (but not after the expiry date), unsold bread after twenty-four hours, food and medicines with defective packaging or wrong labels (but only if the error does not concern allergens and the expiry date), and confiscated food products, while considering the regulations and preservation methods necessary to guarantee food safety. In addition, production or catering activities that make this choice are entitled to a reduction on the waste tax rate in proportion to the quantity of goods disposed of.

Article 9 provides for practices concerning the educational and training aspect of waste reduction, involving public institutions, communication services and educational institutions in campaigns to raise awareness and education on healthy and sustainable food, as well as against food waste and imbalances in access to food. Among the virtuous practices to combat food waste, the article mentions with particular attention the **family bag**, i.e. the possibility for customers to request a container to

²² <https://www.gazzettaufficiale.it/eli/id/2016/08/30/16G00179/sg>



take away their leftover food: the law has allocated quite substantial funds to launch projects to reuse food and promote anti-waste and sustainable packaging.

As for the perks of this law, there is undoubtedly that of having given a unified and concrete arrangement to a subject that had until then been 'fragmented' in many other individual or local laws and provisions. It is, moreover, one of the first laws on the subject at European level. Furthermore, an **incentive-based approach** was chosen for the Italian law instead of a sanction-based approach as is the case, for example, in the French model, which punishes wasteful behaviours. The choice of proceeding by simplification and incentives, although it can be pointed out as a “too soft” approach, may lead to a more responsible attitude on the part of the recipients, in a perspective not of obedience to rules, but of shared construction of conscious production and consumption practices in favour of the environment and people. The choice remains free for the various realities involved, but they find considerable economic and image advantages.

As far as the incentive represented by the reduction on the waste tax is concerned, it was seen by operators in the sector as a very positive aspect: in practice it was also found that often what was saved was in turn donated for charitable purposes. And yet, it can be pointed out that this kind of incentive might be weaker than expected.

As for the “weaker” profiles of the law, one concerns the allocation of a considerable amount of funds for projects concerning the promotion and dissemination of the family bag: while there is certainly a need in Italy to disseminate this practice, which is still little accepted culturally, the massive allocation of funds in this direction (one million euros for each of the years 2016, 2017 and 2018) may be excessive, especially considering that a large part of them went to packaging manufacturers, to the detriment, for example, of the resources allocated to educational projects.

A rather important flaw in the law can actually be seen in its very approach: the focus is indeed on facilitating the donation of surplus food, following a path started with the 155/2033 Law, which is certainly the best way to recover food and save it from the trash, but **does not address the root causes of the problem**. As it was also recommended by the European Council in its conclusions on the 28th June 2016 (as well as it was stated in the previously recalled Waste Framework Directive), the recovery aspect should only come into operation once the **prevention** aspect has been exhausted: it is there that the strongest effort should be put in place, since it is the very consumption and production model that are generating inequalities and detrimental effects on natural resources. Awareness-raising and educational activities, despite being mentioned in the Gadda Law, take on a minor value here, when instead they underpin the whole aspect of waste prevention and are crucial for a shift of paradigm on how food should be viewed in the public narration: not a product just like any other, but a valuable asset with strong cultural, social and moral value and implications.



Finally, as far as the bureaucratic aspect is concerned, although there are some facilitations in the procedures for donating, the bureaucratic aspect still remains somehow problematic, as a monthly report of the donations has still to be done.²³

One of the outcomes of the law which could be regarded as most interesting in this context are the **Ministry of Health guidelines for food waste reduction in food services**²⁴, based on art. 10 of the Gadda Law and approved in 2018. They have been prepared by the Ministry in collaboration with autonomous regions and provinces, featuring provisions tailored to different types of realities (hospitals, schools, companies) with precise and punctual indications that focus not only on the prevention and reduction of food waste and the redistribution of surpluses for social purposes, but also on building a different food culture among all stakeholders involved (not only those who plan and prepare meals, but also users). At the basis of waste reduction is also envisaged an accurate periodic monitoring of surpluses, both on quantitative and qualitative profiles, with an exhaustive list of performance indicators. The other significant aspect is the call for networking between the realities involved and the social sector, so as to make the transfer of surpluses to the needy as quick and efficient as possible. Other issues addressed are: differentiated portions, preference surveys, systems to take into account external and nutritional factors, anti-waste measures such as the second life menu (consisting of food and ingredients that can be easily reused in case of surpluses).

²³ <https://www.ilgiornaledelcibo.it/legge-spreco-alimentare-last-minute-market/>

²⁴ https://www.salute.gov.it/imgs/C_17_pubblicazioni_2748_allegato.pdf

ANNEX III – FRENCH NATIONAL LAW ON FOOD WASTING PREVENTION

FOOD WASTING: A GLOBAL CHALLENGE

Following the definition of the United Nations Environment Programme (UNEP), food waste refers to the food that completes the supply chain up to the final product, but that is discarded. On the other hand, food loss refers to food that is spilled, spoilt or lost during the process in the supply chain before it reaches the final product stage (UNEP, 2022).

In this regard, according to the UN Environment Food Waste Index Report of 2021, 931 million tons of food waste were generated in 2019, 61 per cent of which came from households, 26 per cent from food service and 13 per cent from retail (UNEP, 2021).

Food waste is directly correlated with global hunger, food inequality and health problems. The United Nations (UN) asserts that food waste is one of the direct causes of the inefficient distribution of food at a global level. Approximately, \$1 trillion dollars' worth of food is lost or wasted every year. According to the UN, reversing this trend would preserve enough food to feed 2 billion people. This evidences the existent deficit in the supply chain (World Food Safe Programme USA, 2022).

Notwithstanding, food waste does not only cause problems in the food-related atmosphere. Each year, 3 billion tons of greenhouse gases are emitted because of food waste. Moreover, the current food systems are exhausting soil and water (*ibidem*). Therefore, food waste is a global issue that not only affect global food inequality, malnutrition, etc. but also has a negative impact for the environment and accelerates climate change.

Considering the afore-mentioned situation, the Sustainable Development Goals set the target 12.3, which calls for cutting in half per capita global food waste at the retail and consumer level and reducing food losses along production and supply chains (Champions 12.3., 2022).

Under this target, initiatives such as the Life Foster Project – which aim is to achieve SDG 12.3 by raising awareness on food waste prevention through direct and indirect actions – have emerged during the last decades.

FRENCH NATIONAL APPROACH TOWARDS FOOD WASTING PREVENTION

From the national pact to fight against food waste, signed in 2013, to the Garot law in 2016, to the EGalim law in 2018, France has taken numerous legislative measures to fight against food waste. At the same time, it supports the development of tools in the territories so that the reduction of food losses takes on a concrete dimension, on a daily basis.

Food waste is defined as any food intended for human consumption that, at some point in the food chain, is lost, discarded or degraded.



Since February 11, 2020, the national objective in France has been to reduce food waste, by 2025, by 50% compared to its 2015 level in the areas of food distribution and collective catering and, to by 2030, by 50% compared to its 2015 level in the areas of consumption, production, processing and commercial catering.

Over the years, the French legislative arsenal has been reinforced. From now on, the ban on rendering foodstuffs that are still edible unfit for consumption applies to agri-food industries, wholesalers, distributors and collective catering. Similarly, these actors have the obligation (above a certain threshold) to propose a donation agreement to an authorized association.

Some key figures

In France, each year nearly 20% of the food produced ends up in the trash. This represents 150 kg of food per person per year, wasted along the food chain from producer to consumer.

In other words, it is also every year 10 million tons of wasted food, or 16 billion euros and 15 million tons of CO2 equivalent, or 3% of greenhouse gas emissions from national activity. .

At the same time, 5.5 million people benefited from food aid in 2017 and 8 million people were in a situation of food insecurity for financial reasons.

The Covid-19 crisis has reinforced the need for proximity between all players in the food chain and associations. Indeed, supply chains have been destabilized, which has given rise to new sources of food donations, and the number of people in food insecurity has increased as a result of the crisis. A donation guide has been drawn up by the Ministries in charge of Food and Solidarity to promote contact between actors.

The theme of food waste, closely linked to that of food insecurity, has become an important issue, and the day of September 29 is now dedicated internationally to raising awareness of food loss and waste.

THE NATIONAL PACT AGAINST FOOD WASTE

As early as 2013, France implemented a “National pact against food waste”.

Renewed in 2017, it brings together all the players in the food chain, with the aim of reducing food waste by 50% by 2025 for the distribution and collective catering sectors, and by 2030 for the other sectors. It is piloted by the DGAL and associates 4 other ministries (Ecological and Solidarity Transition, Solidarity and Health, National Education, Economy and Finances), it allows the voluntary commitment of representatives of the entire food chain (to date, around sixty). It structures the roadmap for the fight against food waste until 2020 through 19 commitments by the State and 16 by partners. A review is underway, both at the level of the State and of the partners, to assess the degree of fulfilment of the various commitments and consider the most relevant framework for the future.





REGULATORY CHANGES

Since 2013, many laws have strengthened the fight against food waste.

August 17, 2015 – The law of August 17, 2015 on energy transition for green growth introduces the obligation, for public collective catering, to have an approach to combat food waste.

February 11, 2016 – The so-called “Garot” law establishes a hierarchy in the actions for the fight against food waste: promote the prevention of waste, then use unsold products by donation or processing, then use them in animal feed, and finally use food scraps for compost purposes for agriculture or energy recovery (methanization). In addition, practices for destroying food that is still edible are prohibited. Distributors of more than 400 m² must now offer donation agreements to food aid associations.

October 30, 2018 – The EGalim law introduces the obligation, from July 1, 2021, for commercial catering operators to offer the "gourmet bag" (French doggy bag), and provides additional provisions by decree and prescription.

April 11, 2019 – In application of the EGalim law, it becomes mandatory to set up a donation quality management plan for distributors, from January 1, 2020, to ensure quality, involving training and awareness of the donation. personal.

October 21, 2019 – In application of the EGalim law, an ordinance relating to the fight against food waste is published in the official journal. The obligation to propose a donation agreement to an authorized food aid association is extended to collective catering operators (> 3,000 meals prepared / day), and to operators in the agri-food industry (> €50M turnover). 'affair). The ban on rendering foodstuffs that are still edible unfit for consumption is also extended to these players. It also introduces the obligation to carry out a waste diagnosis for all collective catering before October 21, 2020.

February 10, 2020 – The law on the fight against waste and the circular economy (AGEC law) clarifies the definition of food waste and sets reduction targets. It extends the obligation of anti-waste diagnosis to the food industries. It introduces a national “anti-food waste” label that can be granted to anyone contributing to the national objectives of reducing food waste. It strengthens the grant quality management plan, introducing grant quality monitoring and control procedures. Finally, it extends the obligations of the Garot law to wholesale food trade operators (> €50 million in turnover for the donation agreement), and increases the penalties linked to non-compliance with these provisions.

October 20, 2020 - Decree No. 2020-1274 of October 20, 2020 relating to food donations provided for in Article L. 541-15-6 of the Environment Code, their quality and monitoring and quality control, is an implementing text of the ordinance of October 21, 2019 on the fight against food waste and the law of February 10, 2020 on the fight against waste and the circular economy (AGEC law). It modifies the implementing texts of the Garot law of 2016 and the decree on donation quality management plans of April 2019.



The changes relate to 3 main points:

- updating references for authorized food aid associations (social action and family code, and no longer rural and maritime fishing code),
- the extension of the mandatory elements of the donation agreement to operators in the agri-food industry, collective catering and wholesale trade (> to the thresholds defined in the ordinance and the AGECE law),
- the introduction of a donation quality monitoring and control procedure within the donation quality management plan, as provided for by the AGECE law.

August 22, 2021 - Law n° 2021-1104 of 22 August 2021, on the fight against climate change and strengthening resilience to its effects - Article 256. The Climate and Resilience Law provides for an experimentation of meal reservation solution in collective catering. On an experimental basis and in order to fight against food waste, the managers, public or private, of collective catering services for which legal persons governed by public law are responsible offer, on a voluntary basis, a meal reservation solution in order to adapt the supply to the number of meals actually needed, including for each of the alternatives when choices are possible. This experiment, lasting three years, begins on the date of publication of this law and is the subject of an evaluation focusing mainly on the evolution of food waste, the evolution of attendance rates and satisfaction. Users of the services concerned the results of which are sent to Parliament no later than six months before its end.

THE NATIONAL FOOD PLAN (PNA)

The National Food Program (PNA) is provided for in Article L1 (point III) of the Rural and Maritime Fishing Code. It determines the objectives of the food policy, the aims of which, defined in this same article (point I-1), "to ensure that the population has access to safe, healthy, diversified, good quality food and in sufficient quantity, produced under conditions that are economically and socially acceptable to all, promoting employment, protecting the environment and landscapes and contributing to mitigating and adapting to the effects of climate change".

Entitled "Territories in action", the PNA3 launched on September 23, 2020 takes up the 3 fundamental axes of the previous programs:

- social justice, including the fight against social and territorial inequalities,
- changes in the food supply and consumer information,
- the fight against waste and food education.

It is based on two cross-cutting levers for the transition to safer, healthier, more sustainable and accessible to all food: Territorial Food Projects (PAT) and collective catering.

The PNA is based on a national call for projects (AAP) which is a concrete tool for implementing the food policy. An AAP has thus been launched each year since 2014, in partnership with Ademe since





2016, the Ministry of Solidarity and Health (MSS) since 2017 and the General Commission for Territorial Equality (CGET) in 2018.

151 projects were rewarded for a global grant of nearly 6.7 million euros during the period 2014 – 2019, representing an investment of nearly 20 million euros, around the priority axes of the national policy of the food, with a specific component dedicated to the emergence of PAT since 2016.

The latest edition of the AAP, launched in September 2019, has an envelope of 2 million euros, an increase of 400,000 euros compared to the previous edition to strengthen the emergence of Territorial Food Projects (PAT) . It brings together support from the Ministry of Agriculture and Food to the tune of 1.3 million euros (up by 300,000 euros), from Ademe to the tune of 500,000 euros (up from 100,000 €), from the Ministry of Solidarity and Health in the amount of 200,000 euros. After the selection process at regional and national level, 39 winners were selected, including 24 PAT. In addition to the 24 emerging PAT projects which will include a dimension to fight against food waste, 7 projects relate, at least in part, to the fight against food waste.

THE TERRITORIAL DIMENSION OF THE FIGHT AGAINST FOOD WASTE

At the territorial level, the fight against food waste is part of the Territorial Food Projects (PAT), which must more systematically include this dimension since the EGAlim law in 2018, through the implementation of the PNA at the regional level, in connection with the Regional Food Committees (CRALIM), introduced by the EGAlim law, relying in particular in certain regions on the Networks to combat food waste (REGAL).

The REGAL (Networks for the fight against food waste) aim to mobilize, at the scale of a territory, all the actors of the food chain: dissemination of information, creation of collective knowledge, emergence of innovative projects, sharing and capitalizing on good professional practices... It is a real working community that works in collective intelligence to meet the challenges of food waste.

REGALs have no standard format and can be structured differently depending on their territorial contexts. Ademe, DRAAF (Regional Directorate for Food, Agriculture and Forestry), DREAL (Regional Directorate for the Environment, Planning and Housing), Regional Council, communities, food aid associations or environmental education... The REGALs are often born of a collective desire to carry out a common project.

CONCLUSIONS

Since the early 2010s, food waste prevention has been a priority in government programs. Data shows that food waste has become a major problem: current food systems are no longer sustainable and have a direct impact on climate change, food inequality and the loss of natural resources.

This is why many organizations, such as the United Nations or the European Union, act to prevent food waste. However, few countries have national legislation to address this issue. In this regard, France, by establishing the law on the fight against food waste, is a pioneer in Europe, being one of the first European countries to have a national law against food waste.





The French Food Waste and Loss Prevention Act aims to achieve the SGD 12.3 target by taking steps to reshape any gaps in the current supply chain. In this respect, the already existing national strategies for the prevention of food waste, together with the numerous regional approaches in this matter, are a source of help and an excellent basis for the proper application of the law.

France is currently one of the leading countries in Europe in terms of food waste prevention. It generates awareness and leads to changes in people's food consumption habits and improves deficiencies in the supply chain.

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<https://agriculture.gouv.fr/le-pacte-national-de-lutte-contre-le-gaspillage-alimentaire-publie-un-recensement-des-initiatives>

Economie circulaire : Réduire le gaspillage alimentaire

<https://expertises.ademe.fr/economie-circulaire/dechets/passer-a-l'action/eviter-production-dechets/dossier/reduire-gaspillage-alimentaire/enjeux#:~:text=La%20France%2C%20au%20travers%20du,transformation%2C%20production%20et%20restauration%20commerciale>.

Charte d'identité des REGAL : réseaux pour éviter le gaspillage alimentaire

<https://fne.asso.fr/actualites/charte-d-identite-des-regal-reseaux-pour-eviter-le-gaspillage-alimentaire>

ANNEX IV – SPANISH NATIONAL LAW ON FOOD WASTING PREVENTION

FOOD WASTING: A GLOBAL CHALLENGE

Following the definition of the United Nations Environment Programme (UNEP), food waste refers to the food that completes the supply chain up to the final product, but that is discarded. On the other hand, food loss refers to food that is spilled, spoilt or lost during the process in the supply chain before it reaches the final product stage (UNEP, 2022).

In this regard, according to the UN Environment Food Waste Index Report of 2021, 931 million tons of food waste were generated in 2019, 61 per cent of which came from households, 26 per cent from food service and 13 per cent from retail (UNEP, 2021).

Food waste is directly correlated with global hunger, food inequality and health problems. The United Nations (UN) asserts that food waste is one of the direct causes of the inefficient distribution of food at a global level. Approximately, \$1 trillion dollars' worth of food is lost or wasted every year. According to the UN, reversing this trend would preserve enough food to feed 2 billion people. This evidences the existent deficit in the supply chain (World Food Safe Programme USA, 2022).

Notwithstanding, food waste does not only cause problems in the food-related atmosphere. Each year, 3 billion tons of greenhouse gases are emitted because of food waste. Moreover, the current food systems are exhausting soil and water (*ibidem*). Therefore, food waste is a global issue that not only affect global food inequality, malnutrition, etc. but also has a negative impact for the environment and accelerates climate change.

Considering the afore-mentioned situation, the Sustainable Development Goals set the target 12.3, which calls for cutting in half per capita global food waste at the retail and consumer level, and reducing food losses along production and supply chains (Champions 12.3., 2022).

Under this target, initiatives such as the Life Foster Project – which aim is to achieve SDG 12.3 by raising awareness on food waste prevention through direct and indirect actions – have emerged during the last decades.

SPANISH NATIONAL APPROACH TOWARDS FOOD WASTING PREVENTION

Regarding SDG 12.3, the Spanish national government has recently approved a law on food waste and losses prevention, which will enter into force at the beginning of 2023. In this way, Spain has turned to be one of the pioneer European countries in applying a regulation to fight food wasting at a national level, being the third one in Europe, after France and Italy.

Previous political framework on food wasting prevention

Spain has a considerable background on food wasting prevention initiatives. Avoiding food waste has been a national concern, already decreed in legislative texts of 1584 (García, 2014). Before the approval of the national Law on food wasting prevention, there were different national initiatives and strategies oriented to raise awareness on food waste prevention, such as:

- **“More Food, Less Waste” (2013):** led by the Ministry of Agriculture, Fisheries and Food. Its aim was to promote transparency, dialogue, and coordination between the agents of the supply chain and Public Administrations. Furthermore, it has promoted social awareness, and the boost of good practices in preventing, reducing and optimizing stock.
- **Code of Good Commercial Practices in Food Procurement (2015):** it incorporates the compromise of reducing the volume of food losses and waste in all the steps of the supply chain.
- **Case Study on Food Waste (2013):** led by the [Climate Barometer](#) (entity of the Ministry of Agriculture, Fisheries and Food). This study concluded that the majority of distributors retired an average of 5,6% of their products for exceeding best-before dates. After the repetition of this study in 2015, the investigations showed that, although the food retirements were lower, the destination of the food losses was the same: garbage. Furthermore, the research showed that 95% of national population believes in donating food that is about to expire or that they do not know if they will be sold.
- **Food Waste Quantification Panel (2014):** ongoing strategy that came into operation first in Spanish households and, later, outside of Spanish households. The panel gathered information of the food that was thrown away as purchased, and waste of recipes prepared at home that ended up in garbage. Through the years, the quantification panel has concluded that, in the case of Spain:
 - More than 80% of the food waste corresponds with non-used products, discarded because of deterioration
 - Fruits, vegetables, and dairy products summed up more than the 50% of the mentioned non-used products.

The food waste quantification panel, in its second stage, focused on knowledge, training and awareness, promotion of best practices, collaboration with other agents, sectoral agreements, regulatory aspects, research, innovation and waste, environment and climate change. And it has demonstrated that the awareness of local companies regarding food waste is higher than ever.

Other national strategies that have contributed, indirectly, to the promotion of food wasting prevention are: the National Integrated Strategy and Climate Plan; the Long-term Decarbonization strategy; the Law 7/2021 of 20th of May on climate change and energy transition; the Spanish Circular



Economy Strategy, the Circular Economy Action Plan 2021-2023; the Law 7/2022 of 8th of April on waste and contaminated soils for a circular economy (Ministry of Agriculture, Fisheries and Food, 2021).

The national approach on food wasting prevention nowadays

All the afore-mentioned attempts of addressing the food waste problems represent the breeding ground for the draft of The Food Waste Loss Prevention Law. The Law was approved by the Spanish cabinet on 7 June 2021, under the premise of the urgent need of a change in the Spanish current habits on food wasting. Data show how, during the year 2020, Spanish households accumulated around 1364 million kg of food waste, which is translated in 31 kg of waste per person. During the plenary session for the approval of the actual Law, Luis Planas, the Minister of Agriculture, Fisheries and Food, raised attention on the fact that this data supposes an economic waste of 250 euros per person. The minister also asserted that food waste represents a deficit in the supply change, which supposes economic, social, and environmental consequences.

The Food Waste Loss Prevention Law

With the approval of the Food Waste Loss Prevention Law the government has taken one step further on its compromise with the SDGs, especially with the goal 12.3.

At its origin, the first draft of this Law intended to gather the maximum participation of all involved actors. The draft bill was approved by the cabinet on 11 of October 2021, and it was subjected to a public hearing. Moreover, four forums focused on consumers and NGOs has been organized in this regard (11 of November 2021 in Valencia; 24 of November 2021 in Barcelona; 26 of January 2022 in Pamplona; and 18 of March 2022 in Cáceres).

The Law aspires to promote good practices from the primary sector, from the harvesting and food collection phase to the consumption phase.

Regarding the content of the Law, it presents the following pattern:

- **Hierarchy of Usage's Priorities:** all the actors of the food chain must have a loss and waste prevention plan in place. The objective is that the companies of the supply chain auto-diagnose their production processes, identifying where the food losses are produced and fixing measures to give them alternative uses. In this regard, the hierarchy of usage establishes that the priority is always to reconvert food waste in products for human consumption. If not possible, the preference of usage would be, in order, animal consumption, sub products for the industry, compost, or biofuels.
- **Good Practices:** the companies of the hostelry sector will be obliged to offer the consumers the food that they did not consume, without any additional cost. For that, they need to dispose of suitable packages for food use. Furthermore, the Law disposes that commercial establishments



must have “imperfect” or “ugly” products on sale. It also encourages the adjustment of the best-before date to its maximum consumption date.

- **Strategic Planning:** the government must elaborate a strategic plan at the proposal of the Ministries of Agriculture, Fisheries and Food; Social Rights and Agenda 2030; Consumer Affairs; Ecological Transition and Demographic Challenge; Industry, Trade and Tourism; Social Inclusion and Migration; and Foreign Affairs, European Union and Cooperation. This plan will define the general strategy against food waste and will orient the structure that the autonomous communities must follow in their further actions within this field. As well, the Ministry of Agriculture, Fisheries and Food must draft an annual report on the results of the application of the national plan.
- **Sanctioning Regime:** the sanctioning regime establishes the absence of food loss and waste prevention plan as a serious misconduct. It considers as a slight misconduct not applying the hierarchy of usage or that the companies and the hostelry sector do not donate those products not sold that are suitable for human consumption. In addition, the regime will sanction with a slight fault the companies and entities of social initiative that do not give their surpluses to disadvantaged people. Finally, refusal to cooperate with Public Administrations for the quantification of food waste shall be considered a minor infraction.

Regarding the format of the Law, it contains 18 articles divided in six chapters. Moreover, it has an additional disposition and three final dispositions. The mentioned chapters are structured in:

- **General Dispositions:** this chapter incorporates the aim of the Law, which is essentially focused on the prevention and reduction of food losses and waste on the part of all the agents of the supply chain, and its scope of application.
- **Obligations of the Actors of the Supply Chain.**
- **Measures of Good Practices:** this chapter regulates the recommendations of the Public Administrations joint to the companies and the hostelry sector advice.
- **Rationalization of Best-Before Dates.**
- **Instruments for Promotion and Control:** this chapter specifies the tools to secure a coordinate work among all administrative levels.
- **Sanctioning Regime:** this chapter typifies the offenses and establishes the basic penalties in this area (Ministry of Agriculture, Fisheries, and Food, 2022).

REGIONAL STRATEGIES TOWARDS FOOD WASTING PREVENTION

Apart from the national legislation, several Spanish regions dispose of different strategies against food waste within their regional strategies.

Basque Country

The Provincial Council of Gipuzkoa and The BCC Collaborate For Sustainability And Gastronomic Creativity: the Provincial Council of Gipuzkoa and the Basque Culinary Center (BCC) Foundation have





been collaborating for years to promote the reduction of food losses and waste, focusing on sustainability, healthy eating and creativity in gastronomy (Menos Desperdicio, 2020).

Platform of Euskadi against Food Waste: The Platform of Euskadi against Food Waste was founded to advise and provide support to the Basque administrations in the framework of the "Action Plan against Food Waste 2018-2020" promoted by the Basque Government. It is a forum for debate in which institutions, organizations, associations, entities, individuals, etc. can participate (*ibidem*).

Community of Navarra

Buruxka: The Buruxka project is committed to reduce crop losses that remain unharvested, raising public awareness of the value of food and the problem of its loss and waste. Promoted by the City Council of Valle de Yerri (Navarra), together with partners Public University of Navarra (UPNA) and INTIA, the project includes actions such as increasing knowledge about crop losses in Tierra Estella (*ibid*).

Catalonia

Guide to Avoid Waste in the Hostelry Sector: the Alicia Foundation is a center with a social vocation dedicated to technological innovation in cooking, to the improvement of eating habits and the valuation of agro-food heritage. Together with the Environmental Office of the Autonomous University of Barcelona and the support of the Waste Agency of Catalonia, the guide "¡Aprovechemos la comida! tries to reduce food waste in the hotel, restaurant and catering sector" with recommendations to reduce food waste in the catering sector was drafted (*ibid*).

Guide to Hygienic Practices in the Hostelry and Retail Sectors: the Catalan Food Safety Agency (ACSA) has coordinated the working group formed by the Autonomous University of Barcelona and the Food Bank Foundation and Nutrition without Borders for the development of the "Guide to good hygiene practices for the safe use of food in the catering and retail sectors". In addition, they collaborated with the Department of Welfare and Family, the Department of Agriculture, Livestock, Fisheries, Food and Natural Environment; the Waste Agency of Catalonia (ARC), and representatives of charities, consumer and user associations, catering, and food production and distribution companies (*ibid*).

"Som Gent de Profit" Bets on Raising Awareness About the Value of Food: campaign promoted by the Waste Agency of Catalonia aimed at increasing the awareness of citizens about the consequences of wasting something as valuable as food, and how throwing it in the trash means throwing away money, wasting natural resources and creating negative impacts on the environment (*ibid*).

Castilla y León

Prevention of Food Waste (Food Waste): at the regional level, the Integrated Waste Plan of Castilla y León (PIRCYL) includes a prevention program in which food waste is identified as a priority flow of action. In this sense, the prevention program establishes as a qualitative objective "to eliminate or minimize food waste" (Junta de Castilla y León, 2022).





Castilla y la Mancha

"Don't Waste; Before Throwing Away, Think and Act": the City Council of Talavera de la Reina (Toledo) promotes since July 2020 a campaign to raise awareness among consumers about the need to reduce food waste and to commit to responsible consumption, with the slogan "Don't waste; before throwing away, think and act". In line with the goals of the 2030 Agenda, and more specifically SDG12 "Responsible Production and Consumption", SDG13 "Climate Action" and SDG2 "Zero Hunger", various information, awareness and training actions are being developed at all stages of the food chain on the problem of not taking advantage of food and its impact on social, economic and environmental aspects (Menos Desperdicio, 2020).

Community of Madrid

Market Day at The Casa de Campo de Madrid: On the first Saturday of each month, the "Market Day" takes place at the fairgrounds of the Casa de Campo de Madrid, a meeting point where the consumer can buy agricultural and food products of the Community. The Agricultural Chamber of Madrid, a public law corporation, in collaboration with the Regional Ministry of the Environment and Territorial Planning, launched this initiative, under the slogan "Madrid cultivates and produces", in June 2011 (*ibidem*).

The Garden without Waste: learning more about the importance of consuming seasonal food from the immediate environment is the objective of the project "The garden without waste". Aimed at schoolchildren from kindergarten to high school, and in line with the #YoMeQuedoEnCasa initiative, it was designed by the educational team of "La red de huertos escolares de Madrid". The proposed activities show students the importance of aspects such as the seasonality of food, the benefits of consuming products whose origin is close to the consumers themselves, and how to adopt healthier and more sustainable habits in relation to our food (*ibid*).

Government of Aragon

Organize, Organizing, less Food Waste we are Generating: The General Directorate of Sustainability of the Government of Aragon has been organizing since 2017 the campaign "Organize, organizing, less food waste we are generating" to raise awareness among consumers about the repercussions of wasting food, as well as provide information on how to act to try to minimize it.

Aragón en tu Cesta: The Government of Aragón has promoted this platform in order to encourage cooperation between agrifood producers and consumers and to foster direct sales channels of products from Aragón through the Internet (*ibid*).

Valencian Community

Punt de Sabor, the Farmers' Store: an initiative to prevent food waste losses during the distribution phase in the supply chain, since the farmers can sell directly their products to the consumers in cities (*ibid*).



Plan Bon Profit: plan against food waste, aimed at raising awareness about the issue, identifying challenges and opportunities, and specifying sustainable actions adapted to the territory. All this by establishing coordination mechanisms between the administration and agents of the food chain and generating actions to sensitize. The project aims to promote price reduction strategies, establishing a system in which when the product is not suitable for human consumption, it can be sold for animal consumption. In addition, this food can ultimately be used to generate energy (*ibid*).

CONCLUSIONS

Food wasting prevention is becoming a priority in government's agendas. Data shows that food wasting has become a major problem: the current food systems are no longer sustainable, and they have a direct impact on climate change, food inequality, and loss of natural resources.

Therefore, many organizations, such as the United Nations or the European Union, are acting to prevent food waste. However, few countries have a national legislation to address this issue. In this regard, Spain, by approving the afore- mentioned Food Waste Loss Prevention Law, have become pioneer in Europe, being one of the first European countries having a national Law against food waste, right after Italy and France.

The Spanish Food Waste and Loss Prevention Law intends to achieve the 12.3 SGD goal by taking steps to remodel all the deficiencies of the current supply chain. In this regard, the already existing national strategies for food waste prevention, joint to the numerous regional approaches on the matter can be a source of help and a great background for this Law to be enforced properly.

Hence, Spain is currently one of the first countries in Europe taking one step further in food wasting prevention. It is expected that the new national Law will generate a change in the food consumption habits of the Spanish population and ameliorate the deficiencies of the supply chain.

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ANNEX V – MALTESE NATIONAL LAW ON FOOD WASTING PREVENTION

PREMISE

This document provides an outline of the Maltese food waste legislation, incentives and initiatives which address the food service sector, and which are thus relevant to the LIFE FOSTER project (Action B3). For the purposes of this exercise, MBB has summarized the recently released 'Long Term Waste Management Strategy 2021-2030' issued by the Ministry for the Environment in September 2021. The strategy includes information on the current state of play in terms of waste legislation and policy, current shortcomings, and what measures will be introduced.

CURRENT STATE OF PLAY

There is currently limited national data on food waste generation in Malta at each stage of the supply chain. Current and past initiatives tied to food waste have been mainly related to awareness-raising campaigns and the roll-out of a national household organic waste collection system in 2018 which was absent in Malta for decades. Over 2011-2018, Malta has seen an overall increase in food waste levels. Most of this waste was landfilled. Food waste collected after 2018 has started to be processed via anaerobic digestion.

The lack of proper waste management practices in the commercial sector is resulting in several issues such as an uneven playing field between enterprises. There is also a low rate of waste separation in commercial establishments, with most waste being mixed. Catering establishments are required to engage a third-party contractor to collect waste. However, they are not obliged to separate this waste at source. In a 2019 Budget Measure, the government committed to regulate commercial waste further.

In 2019, the Maltese national waste management authority (Wasteserv) implemented an EU LIFE project (led by Resource London) called Trifocal. This targeted households and food businesses, which aimed to:

- Prevent food waste by changing planning, shopping, storage and meal preparation behaviours;
- Promoting healthy and sustainable eating by changing purchasing and preparation practices;
- Recycling unavoidable food waste.

The project involved a pilot organic waste collection from food service establishments in one locality in Malta, coupled with dedicated food waste reduction training and awareness raising.



POTENTIAL GENERAL MEASURES TO REDUCE FOOD WASTE (RELEVANT TO FOOD SERVICE)

- Develop legislation for the diversion of food waste from landfills.
- Overcome barriers imposed by current legislation restricting the redistribution of food.
- Support the utilization of digital channels and applications for food redistribution initiatives and food sharing initiatives within communities.
- Develop a reporting methodology for monitoring food waste.
- Organise a series of cooking roadshows and community cooking lessons.

COMMERCIAL WASTE MEASURES TO BE INTRODUCED

Phase 1:

- Promote the voluntary separate of waste.
- Provide training to commercial establishment on proper separation and prevention.

Phase 2:

- Ensure mandatory separation of waste from all households and commercial establishments.

Phase 3:

- Introduce a 'pay-as-you-throw' system to incentivize prevention.