



Introduction

EU is committed to achieving a **50% reduction of food waste by the year 2030**, while Cyprus has for the first time established a national waste prevention program (2015-2021) and has recently prepared the Municipal Waste Management Strategy 2021 – 2027. The present work is focused on collecting and assessing the existing foodwaste prevention programs and initiatives at national (in Cyprus), European and international level, seeking to a potential application in Cyprus.

Methodology of Assessment

A classification system was put in place to categorize the actions of foodwaste prevention programs reported and identify common traits adopting the framework for the evaluation of food waste prevention actions and their assessment developed by the European Platform on Food Loss and Waste. Clustering criteria are summarized in Figure 1 as well as in Figure 2.

Food Waste Across the Value Chain



Figure 1: Stages of the food supply chain that the food waste is originated from.

Key performance indicators were adopted to evaluate the quality of the actions designed reflects to which extent the action was well planned.

- Effectiveness: successful in producing the desired result.
- Efficiency: capacity to reach a desired result with the least time/cost/effort.
- Sustainability: potential of sustaining over time.
- Transferability and scalability: which extent they were considered during the design of the action.
- Intersectoral cooperation: between the private and the public sector and/or between different actors along the supply chain.



Figure 2: Classes that prevention programs are grouped, according to their goal and the means to achieve each of them.

Results and Discussion

209 actions were listed from Europe. Just 12 have been thoroughly evaluated due to lack of means of their assessment. Some programs could not be assessed due to a lack of data, as the projects reported are still ongoing. Another case scenario is that the information reported described a research project, which for example could show the potential of a change in the production of animal feed that has not yet been put in practice by the industry.

Table 1: Number of actions reported for each stage of the food supply chain and action sub-type in Europe.

Type	Sub-type	Supply chain stage				
		Primary production	Manufacturing	Distribution and retail	Food service	Households
Redistribution (R)	Surplus food redistribution	8	9	13	28	13
	Gleaning	6	0	0	0	0
	Digital tools R	0	0	1	2	0
Food valorization	Value added processing	0	0	1	3	1
	Animal feed	0	0	0	3	1
Behavior change (BC)	Awareness/educational campaign	3	2	6	23	57
	Digital tool BC	0	0	0	3	14
	School programs	0	0	0	0	12
	Awards	0	0	0	1	1
	Innovation of products - date marking	0	2	0	4	4
Supply chain efficiency (SCE)	Process innovation	0	1	0	8	5
	Innovation of products - packaging	1	2	3	3	3
	Training & guidelines	2	3	2	12	10
	Price discount	0	0	2	3	0
	Imperfect produce sale	0	0	0	1	0
	Certification	0	0	0	1	0
	Public procurement	0	0	0	6	0
Digital tools SCE	1	1	2	8	1	
Food waste prevention governance	Voluntary agreement	5	7	8	6	5
	Regulatory framework/policy	5	5	5	9	1
	National FW prevention program	5	6	7	6	6
	Fiscal incentives	2	1	2	4	0

The Cypriot policy on waste management is based on waste hierarchy and the correct environmental handling. A rather limited public debate about important issue of food waste prevention was noted. No waste prevention measures have been operating in the primary production sector, and farmers complain that they have no assistance in doing so, as no official regulatory systems of amounts of agricultural produce was identified to restrict oversupply.

This analysis revealed important information gaps that hinder the systematic impact assessment of food waste prevention interventions. A key outcome, is that future programs should be designed and implemented ensuring the provision of the data required for their evaluation. Several success stories were identified from which a few were considered as potential replication studies for Cyprus. In this context, this holistic approach may lead to engrossing outcomes that can lead to a more efficient planning methodology in Cyprus.

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References

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