

Social Responsibility and Food Waste in the Czech Republic

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Abstract

The article tackles the issue of food waste, which is a worldwide problem with economic, environmental and socio-ethical effects. The EU also considers this problem to be really important as food belongs to the resources that should be saved within the Flagship initiative under the Europe 2020 Strategy. The individual EU members therefore prepare their own strategies to lower food wastage. However, there are still serious deficiencies in the Czech Republic in this respect, concerning both prevention and handling the consequences of food wasting (e.g. in redistribution of food for the needy).

Recently, it is not necessary to prove that wasting resources is a serious problem. An efficient solution of this issue is a necessary condition of sustainable development of the whole Planet, especially relating to the demographical development, respectively to the enhancing number of people on the Earth. "Today humanity uses the equivalent of 1.5 planets to provide the resources we use and absorb our waste." (Global Footprint Network, 2014) This means that recent human behaviour loots the Planet's resources and disables their recovery. It is not only an academic issue or the problem of a distant future. If the consumption continues at the same pace, we would need two planets already in 2030. (Global Footprint Network, 2014) But the fact is that there is only one planet at our disposal, and we will not have any other in the foreseeable future. The problem of wastes has also the second dimension: which economies will absorb wastes? Very many governments implemented restrictive regulation on importation of wastes and the trade with wastes become an issue in international environmental agreements. As such, trade provisions of mentioned agreements founded an extended discussion on trade and environment at the WTO (Štěrbová, 2013).

If we focus on particular regions or states, the behaviour of people in relation to resources differs. This is determined by the amount of resources in the given region on the one hand, on the other hand, it is also influenced by regional patterns of behaviour. For example, if everyone behaved as an average American, we would already need five planets to ensure all the resources needed. However, Europe as a whole is not lagging behind in this respect. The EU represents not even one tenth of our Planet's population. (Global Footprint Network, 2010) Nevertheless, it consumes approximately half of the world's production of meat and 15 per cent of all the energy produced. (European Commission, 2010a) Therefore, it is not an incident that economising resources has become a priority in the following development of the EU.

Several documents within the strategy Europe 2020 already tackle the issue of using resources, whereas the initiative A resource-efficient Europe - Flagship initiative under the Europe 2020 Strategy plays the key role. (European Commission, 2011a) Based on this initiative, The Roadmap to a Resource Efficient Europe originated. (European Commission, 2011b) This document states that "each person (EU) consumes 16 tonnes of materials annually, of which 6 tonnes are wasted". A half of this wastage is not used in any other way anymore and it ends at the landfills. The aim is to start to understand the wastage as a resource till 2020, while using technologies of efficient raw material recycling.

The sector of alimentation was indicated as one of the three key sectors that largely participate in consumption of resources (and in related wasting). On average, 180 kg per capita of food is wasted per year, whereas it is mostly food that is still suitable to be consumed. An ambitious goal was stated by the EU until 2020 in this respect: "Disposal of edible food waste should have been halved in the EU." (European Commission, 2011b) The European Union directly appeals to its member states to compile this issue into their own national programmes.

The following tables illustrate the amount of food that is not used for its original purpose, and it is therefore wasted.

Table 1: Animal and vegetal waste excluding slurry and manure in tonnes in 2006

	NACE Branch					Total without Agriculture, Agriculture, hunting and forestry
	A - Agriculture, hunting and forestry	DA - Manufacture of food products; beverages and tobacco	HH- Households	Other sectors	Total	
EU-27	32 636 495	37 307 575	23 351 264	16 821 345	110 116 678	77 480 183
Austria	9 500	570 544	661 300	502 259	1 743 603	1 734 103
Belgium	170 682	2 311 847	934 760	945 308	4 362 597	4 191 915
Bulgaria	255 754	358 687	0	27 491	641 932	386 178
Cyprus	19 574	186 917	0	21 421	227 912	208 338
Czech Republic	123 559	361 813	108 723	112 673	706 768	583 209
Denmark	997	101 646	38 923	45 341	186 907	185 910
Estonia	24 036	237 257	1 298	36 059	298 650	274 614
Finland	2 334	590 442	95 102	207 587	895 465	893 131
France	453 300	626 000	2 973 800	2 128 974	6 182 074	5 728 774
Germany	525 441	1 848 881	7 676 471	862 344	10 913 137	10 387 696
Greece	284 662	73 081	0	2 400	360 143	75 481
Hungary	311 772	1 157 419	45 509	305 840	1 820 540	1 508 768
Ireland	1 568	465 945	538 651	292 806	1 298 970	1 297 402
Italy	98 652	5 662 838	2 706 793	407 530	8 875 813	8 777 161
Latvia	38 049	125 635	10 466	10 531	184 681	146 632
Lithuania	271 599	222 205	737	248 291	742 832	471 233
Luxembourg	691	2 665	62 538	30 829	96 723	96 032
Malta	7 481	271	1 778	2 840	12 370	4 889
Netherlands	1 256 541	6 412 330	1 703 416	1 206 057	10 578 344	9 321 803
Poland	16 462 589	6 566 060	2 049 844	356 259	25 434 751	8 972 162
Portugal	41 057	632 395	0	373 767	1 047 219	1 006 162
Romania	8 037 598	487 751	0	1 089 466	9 614 815	1 577 217
Slovakia	41 357	347 773	78 546	105 021	572 697	531 340
Slovenia	6 521	42 072	25 215	65 232	139 040	132 519
Spain	1 046 681	2 170 910	6 950	3 387 592	6 612 133	5 565 452
Sweden	3 122 000	601 327	386 011	547 335	4 656 673	1 534 673
United Kingdom	22 500	5 142 864	3 244 433	3 500 092	11 909 889	11 887 389

Source: European Commission (2010b)

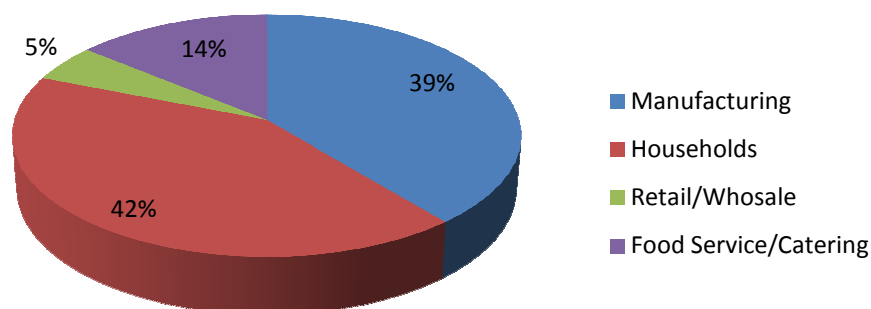
Table 2: Animal and vegetal waste excluding slurry and manure in kg/capita in 2006

	Population	NACE Branch					Total without Agriculture, Agriculture, hunting and forestry
		A - Agriculture, hunting and forestry	DA - Manufacture of food products; beverages and tobacco	HH- Households	Other sectors	Total	
EU-27	493 194 250	66	76	47	34	223	157
Belgium	10 511 382	16	220	89	90	415	399
Bulgaria	7 718 750	33	46	0	4	83	50
Czech Republic	10 251 079	12	35	11	11	69	57
Denmark	5 427 459	0	19	7	8	34	34
Germany	82 437 995	6	22	93	10	131	125
Estonia	1 344 684	18	176	1	27	222	204
Ireland	4 209 019	0	111	128	70	309	309
Greece	11 125 179	26	7	0	0	33	7
Spain	43 758 250	24	50	0	77	151	127
France	63 229 443	7	10	47	34	98	91
Italy	58 751 711	2	96	46	7	151	149
Cyprus	766 414	26	244	0	28	298	272
Latvia	2 294 590	17	55	5	5	82	65
Lithuania	3 403 284	80	65	0	73	218	138
Luxembourg	469 086	1	6	133	66	206	205
Hungary	10 076 581	31	115	5	30	181	150
Malta	405 006	18	1	4	7	30	12
Netherlands	16 334 210	77	393	104	74	648	571
Austria	8 254 298	1	69	80	61	211	210
Poland	38 157 055	431	172	54	9	666	235
Portugal	10 569 592	4	60	0	35	99	95
Romania	21 610 213	372	23	0	50	445	73
Slovenia	2 003 358	3	21	13	33	70	67
Slovakia	5 389 180	8	65	15	19	107	99
Finland	5 255 580	0	112	18	39	169	169
Sweden	9 047 752	345	66	43	60	514	169
United Kingdom	60 393 100	0	85	54	58	197	197

Source: European Commission (2010b)

When looking at the data in the previous table, the general world trend is confirmed that in the more developed countries, there is more wastage in distribution and consumption, whereas technologically less developed countries lose most food in agriculture and production. (FAO, 2014a)

Chart 1: Percentage breakdown of EU27 food waste arising by Manufacturing, Households, Retail/Wholesale, and Food Service/Catering sectors (best estimate)



Source: European Commission (2010b)

Investigating the issue of food wastage may be divided into several areas. First and foremost, it is the problem itself, where the causes and impacts of the issue are examined, respectively; efficient strategies of the problem solution are searched for. Second, it is the definition and measurement of the phenomenon, as there are different definitions and methodologies of measurement, whereas it is very difficult to get comparable data of the situation. Just to illustrate: FAO defines food losses as “**the decrease in quantity or quality of food** and ... the agricultural or fisheries products intended for human consumption that are ultimately not eaten by people or that have incurred a reduction in quality reflected in their nutritional value, economic value or food safety” (FAO, 2014b) and food waste as “part of food loss, which refers to the discarding or alternative (nonfood) use of food that was fit for human consumption – by choice or after the food has been left to spoil or expire as a result of negligence.” (FAO, 2014b) Parfitt et al. (2010) differentiates these two terms from the point of view of the ground of their origin. Food losses are caused by insufficient technologies (of harvesting, storing, production etc.), whereas food waste relates to behavioural issues. However, they incline towards using the term food waste as an umbrella term, regardless of the grounds of origin or the link in chain where the wasting occurs¹.

Regardless of the complicity of examining this issue, a row of studies have been conducted that offer at least some data that may help understand the depth of the problem. The study Global food losses and food waste from 2011 and awaited study of this year Food losses and waste in the context of sustainable food systems, both prepared by FAO, are very useful. (FAO, 2011; FAO, 2014a) The recent study Options for Cutting Food Waste was written within the EU, (STOA, 2013), but also the older study "Preparatory Study on Food Waste Across EU 27" brings valuable data. (European Commission, 2010b) Very interesting studies have originated at the Barilla Center for Food & Nutrition with the collaboration of the University of Bologna and the University of Rome (2012), and also the British initiative “WRAP” is very active. Nevertheless, there are research reports of quite a good quality in other European countries as well.

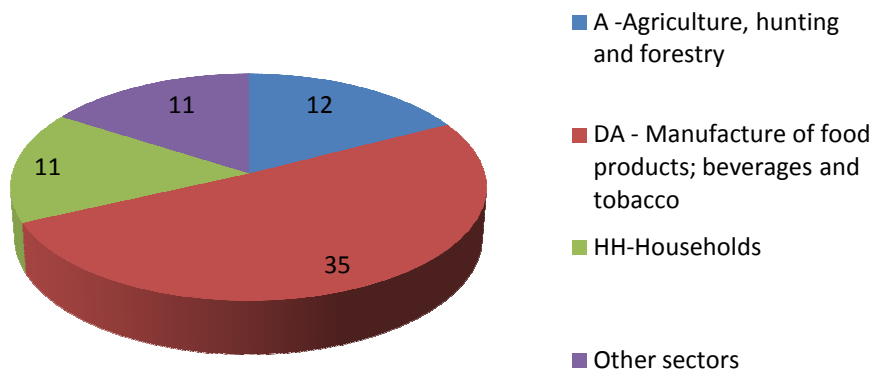
Some states have already responded to the call of the European Parliament and the issue of food wasting appears also in the agendas of state administrations. Great Britain pays big attention to food wastage (as they do to many other initiatives towards sustainability), the Government uses even regulatory measurements to avoid food wastage there. For example, the directive The Waste (Scotland) Regulation 2012 (SEPA, 2014) enacts a special sorting of wastage originated from food. France declared National treaty against food wasting. (OECD, 2013) The requirement of the European Parliament is also fulfilled in Sweden by the initiative More food, less waste (Ministerio de Agricultura, Alimentación y Medio Ambiente, 2014).

¹ For more details of defining the issue see (European Commission, 2010b).

Corporations also join the initiatives. We may find an example in Great Britain again, where Tesco committed itself to substantially lower food wasting based on their analysis Tesco and society: Using our scale for good. (Tesco, 2014) And of course, NGOs are very active in this respect. Compared to the previous examples, the situation in the Czech Republic is totally different. We may claim that non-profit organisations, as e.g. Safe Food, think-tank Glropolis, Food Banks etc., are more likely to take the initiative, and also some corporations pay attention to this topic within their CSR strategy (e.g. Tesco). Interest of the Czech administration in this topic is at minimum.

According to the last Eurostat data, approximately 69 kg of food is wasted per capita annually in the Czech republic. (European Commission, 2010b) The following chart represents the shares of particular NACE branches of the food chain on this food wasting.

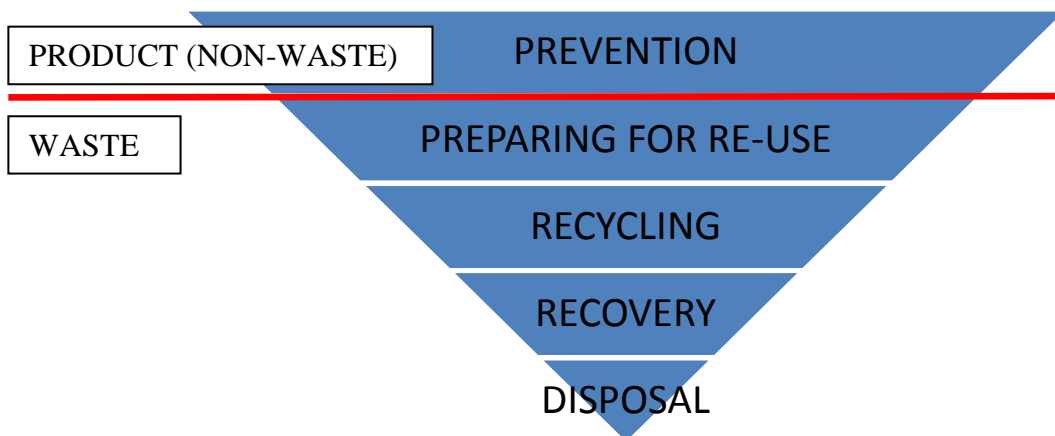
Chart 2: Shares of NACE branches on food wasting in the Czech Republic (in kg/capita)



Source: European Commission (2010b)

This article is focused namely on the part of food waste that originates in distribution and households. Only the wastage from households and the so called other sectors belonging to distribution (retailing, catering etc.) represents almost a quarter of million tons of food, that could have been used mainly for human use, i.e. to redistribution. The following picture shows the so called pyramid of disposing with food.

Diagram 1: EU Waste Hierarchy



Source: European Commission (2013)

It is totally obvious from the picture above, that the solution concerning food wasting in the final parts of the food chain follows two main tracks. The former one is prevention, hence impeding the creation of food waste. The latter one is represented by efficient usage of the already produced “waste”. However, it is necessary to enhance the awareness of all citizens about the issue in both cases, which is recently relatively low.

Prevention must especially act to influence the consumption. To achieve that, it is necessary to reveal the causes of food wasting. In households, it is particularly bad food storage, buying more food than the household is able to process and the disability to work with the data about durability². Prevention must therefore focus primarily on eliminating the grounds: the consumer should be instructed about suitable ways of disposing of food and should be informed about the consequences of food wasting. Inherently, he/she will be interested mainly in economic effects for his/her household. Nevertheless, also the environmental and social fallouts should not be marginalised. When educating the general public, the media may be very efficient, particularly the TV and the so called new on-line media. Their effect may be observed also with a further problem related to food, which is low quality of food, also connected to health nutrition. A few years ago, the Czech consumer was not too interested in the quality of food. However, involving the above named ways of communication helped to medialise the issue of food quality and the consumer started to pay more attention to this factor. There is no reason not to revise this successful way of communication to inform about food wasting. Last but not least, the issue of wasting food should become an essential part of teaching civics and environmental lessons at basic, eventually also secondary schools. The effect of the “informed child” may then influence the behaviour of the whole household.

In the case of catering, it is mainly school canteens that produce a big amount of waste. This is caused mainly by a normed size of the portion that is too big for some pupils and students. However, also preferring the nutritional value of the food to their taste and creative look may also belong to the reasons to a lesser extent. A solution of this problem is not complicated: surveys have shown that if one serves food on his/her plate himself/herself, he/she mainly eats up the whole portion and no waste originates. However, only very few catering facilities in the Czech Republic work in this way, even if there is often no obstacle to it. The food would not be wasted then and could enter into redistribution.

Nevertheless, the situation is different in retailing. Retailers in the Czech Republic do not publish their share of food waste, but we may expect that this will not differ too much to the data from abroad. There are several causes of wastage, beginning with bad storage and ending with excluding the item from the sale because it does not fulfil the aesthetic demands of the seller. Some retail chains have partially adjusted their strategy and have enabled e.g. the sale of apples of smaller sizes or of vegetables of irregular shape etc. However, there are still many items that are not offered to the customers, even if they are still edible. It would be logical to provide this food to redistribution, for example to Food Banks, although Czech legislation does not reflect such donation, and the company has to pay the 15% VAT from the donated food. On the other hand, if this food is shown as a waste, no tax must be paid. It is then very easy to behave in pragmatic way and save costs. In this respect a relatively big pressure of part of the business sphere, NGOs and part of public on state administration evolved, and it was promised that legislation will be adjusted until 2015. If the food is donated by the company to some NGO to redistribute them for the needy, the VAT should not be paid. If this really comes true and if it is not linked to unnecessary administrative of the companies, the issue of food wasting should be solved to a great extent.

To solve the problem totally, also the second phase, i.e. redistribution of food to the needy, must be successfully performed. Non-governmental organisations, six Food Banks associated in the Czech Federation of Food Banks (2014), deal with redistribution of the donated food in the Czech Republic. These banks work on a voluntary basis, and employ only a minimum of necessary workers, as e.g. warehousemen. The authors of this article had the possibility to work with the students of Master Programmes at practical projects that should have helped the Food Banks to work more efficiently, especially with respect to the intended legislative change that could significantly intensify the process of food donation. The projects were focused on the analysis of the processes and designing the information system, on designing the marketing strategy etc. Teams of students were enthusiastic doing meaningful projects and proposed very responsibly many feasible and efficient solutions

² We have conducted a survey among our students of Master Programme (of economic university!!) and we have realised, that more than a half of the respondents are not able to distinguish the “Best before” and “Use by” dates and they consider them to be equivalents. Whereas the “Best before” date does definitely not say that the food is not edible any more. In spite of that, the respondents understood the date like that and threw the food out after passing the date.

and relatively simple implementations that may really significantly contribute to more efficient functioning of the Food Banks.

Working on the projects has revealed a rather serious problem: we have to say, with a really big respect to the efforts of all the volunteers of the Czech Food Banks, that these banks suffer by the typical “children’s diseases” of the NGOs. It is certain closeness of the community and reluctance to admit other ideas. Operative management with a share of improvisation prevails, in some Czech organisations even multiplied by the unwillingness to fully use modern technologies. There is much enthusiasm and passion, but less professionalism. We repeat again that we fully respect and admire the work of the volunteers. However, if the NGO should work efficiently and serve its purpose, it must be based on a firm and professionally managed platform with a clearly formulated strategy. Moreover, there must be structured procedural steps, including the management of financial and informational flows. Last but not least, it needs a viable marketing strategy. All this is not fully resolved within the Czech organisations, therefore the authors are of the opinion that if the law is amended and retailers are able to donate food without any further losses, the Czech Food Banks will not be able to efficiently redistribute the enhanced inflow of food, unless they change their way of work.

The question is: who should redistribute? The project of food redistribution does not work on a commercial basis; respectively, a higher rate of risk of misusing the food donations is linked to the commercial subjects. In this case, NGOs are customary and appropriate subjects. However, the authors do not see any suitable organisation capable of managing the food redistribution in recent Czech conditions. State administration could be another subject coming into consideration, and this thought is worth developing. The state could be efficient at the level of local authorities in this case. Local authorities work with extensive information systems, and have enough qualified employees and experience with work in the social sphere. Ideally, the subject in charge of redistribution would mainly only manage the flows of information and food without the excessive intermediate storage of food, as it is in the Food Banks. This brings us back to the introductory thoughts: the State must first understand that food wastage is a serious problem, and then it will be willing to get involved into its solution.

Conclusion

Wasting resources belongs to the most serious problems that humanity must tackle. More and more states and supra-state bodies understand that and pay adequate attention to this. Also the EU has ranged the strategy of more efficient resource management among its priorities. Food unambiguously belongs to strategic key resources that are linked to the problem of their wastage. Food wasting involves economic, environmental and ethical-social level. The European Parliament has clearly called upon the governments of the member states to deal with the issue of food wasting in their national programmes. There is still much to be improved in this respect in the Czech Republic, and it seems that the problem itself and its consequences have not been sufficiently understood here. Although the Czech Republic does not belong to the states with the highest rates of food wasting, the annual estimated amount of the food wasted is so high, that the problem should definitely be handled. Prevention and redistribution of food are keys of the solution. Prevention should be focused on informing and bringing-up the consumers to conscious patterns of behaviour that minimise food waste. In the area of redistribution, it is first necessary to eliminate legislative boundaries that make food donation difficult. After that, it is necessary to set the processes in the way so that the donated food gets to the needy and may therefore be really used. Here, the authors see also a space for local governments that have capabilities and abilities to participate efficiently in food redistribution. The typical food redistributors – NGOs – are not able to redistribute a larger amount of food in the Czech Republic, according to the authors of this article. On the other hand, this does not mean that such a subject cannot originate in the near future, or that the recent Czech Food Banks do not professionalise their way of work. In any case, it is necessary to begin to tackle the problems related to food wastage in the Czech Republic right now!

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