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"Die zivilgesellschaftlich organisierte Lebensmittelrettung: Gegendynamik zur Hunger verursachenden Ungleichverteilung?"

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# **Declaration of authorship**

I, Christine Thinnes, hereby declare that the submitted master's thesis: «Die zivilgesellschaftlich organisierte Lebensmittelrettung: Gegendynamik zur Hunger verursachenden Ungleichverteilung?», is my own unaided work. All direct or indirect sources used are acknowledged as references. I am aware of the University's regulations concerning plagiarism, including those regulations concerning disciplinary actions that may result from plagiarism. The digital and the printed version of this master's thesis are identical.

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#### **Abstract**

This master's thesis investigates on possible advantages and disadvantages of food saving activities in supermarkets by specialized NGOs, considering these activities (among many others) as a possibility to relieve hunger provoked by systemic disparities. The theory of Neogramscianism by Robert Cox is employed to define finance capitalism, neoliberalism and the mode of mass production as an international historic bloc on one side. The so-called third, corporate food regime and the entity of the supermarket, inter alia, central to this thesis forming part of the latter. And to define the progressive grassroot movement and the, in this thesis central food saving NGO's, arising within the regime on the other side as a movement of reversed transformismo. The in the empirical part of this master's thesis consulted NGOs are the Viennese foodsharing Austria and Lebensmittelrettung Österreich and the surveyed supermarket corporations are the Viennese SPAR Holding AG, REWE GROUP and dennree. All of them are, just as the Austrian government and individual citizens, examples for stakeholders of the Viennese food saving movement, the latter as well being outlined in the theoretical part of this work. It is an underlying aim of this master's thesis to put forward the work and influence of smaller NGOs in the field of food saving activities.

#### Zusammenfassung

In der vorliegenden Masterarbeit sollen mögliche Vor-und Nachteile der Lebensmittelrettung im Supermarkt durch spezialisierte Nichtregierungsorganisationen erörtert werden; dabei wird diese Art der Lebensmittelrettung als eine von sehr vielen Möglichkeiten wahrgenommen, den systemisch verursachten Hunger etwas zu dämpfen. Mit der Theorie des Neogramscianismus nach Robert Cox werden auf der einen Seite der Finanzkapitalismus, sowie der Neoliberalismus und die mit beiden einhergehende industrielle Massenproduktion als ein internationaler historischer Block wahrgenommen. Zu diesem internationalen historischen Block werden dann auch das dritte, vor allem von Konzernen dominierte Ernährungsregime und die in dieser Arbeit unter anderen vordergründige Einheit des Supermarktes hinzugezählt. Auf der anderen Seite werden die als progressiv bezeichnete grassroot Bewegung und die mit ihr verbundenen, in dieser Masterarbeit relevanten NROs, über den Neogramscianismus als umgekehrter transformismo definiert.

Die im empirischen Teil dieser Arbeit befragten NROs foodsharing Austria und Lebensmittelrettung Österreich, sowie die befragten Supermarktkonzerne SPAR Holding AG, REWE GROUP und dennree sind wie die österreichische Regierung und individuelle BürgerInnen Teil, der Wiener Lebensmittelrettung Bewegung. Letztere wird ebenfalls im theoretischen Teil dieser Arbeit skizziert. Es ist grundsätzlich ein Anliegen, mit dieser Masterarbeit die Arbeit und den Einfluss kleinerer NROs im Feld der Lebensmittelrettung hervorzuheben.

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## **I.** Introduction

## I.1 Zoom onto several counteractions against neoliberal disparities

The liberal trade policies of neoliberalism and the third, corporate food regime that emerged with them, have dominated the global economy for approximately the last thirty years (cf. Giménez/ Shattuck, 2011: 111-112). Globally backing a «'rule-governed structure of production and consumption of food'» (Giménez/ Shattuck, 2011: 110 after Friedmann 1993, McMichael 2007) that left «many developing countries [...] with a startling dependence on the global market for basic food and grains» (idem: 112) (cf. Giménez/ Shattuck, 2011: 112). The latter seemingly being one of the aspects causing the global food crisis of 2008 and record levels of hunger (cf. idem: 111-112). «[...] [N]eoliberalism as a form of social and economic development is full of contradictions, crises and contingent practices» (Gill/ Cutler, 2014: 9) as Gill and Cutler state in New Constitutionalism and World Order. Allowing for «immense increases in inequality and social dislocation, while at the same time wealth and power is being concentrated in the hands of a global plutocraty» (idem). Apparently, this bias also makes food overproduction on one side and hunger and poverty on the other side possible, as will be seen further on. Holt and Giménez nonetheless also refer to Karl Polanyi's thesis, that there exists a so-called «'double-movement'» (Giménez/ Shattuck, 2011: 113) between the «capitalist markets [...] eventually destroy[ing] both society and their own natural resource base» (idem) and governments pushed towards reform (cf. Giménez/ Shattuck, 2011: 113). «When applied to capitalist food regimes, the Polanyian thesis suggests that under social pressure even strongly liberal food regimes can undergo substantive, regulatory policy change» (Giménez/ Shattuck, 2011: 113). Nowadays' «food movements, responding to the social, economic and environmental crises unleashed by the corporate food regime, are [thus] important forces for social change» (idem). Later on in this master's thesis, examples from the Viennese food movement will be crucial.

On the macro level, the corporate world has, for example, already become aware of the need to change the parameters of the currently predominant neoliberal production system, to start tackling worsening side effects and issues.

In 1995, the World Business Council for Sustainable Development (wbcsd), based in Geneva, started its operations (cf. environmenthouse.ch, «Geneva Green Guide. World Business Council for Sustainable Development»). Today, the CEO-led organization unites

«200 leading businesses working together to accelerate the transition to a sustainable world» (wbcsd.org, «Overview. About us») (cf. wbcsd.org, «Overview. About us»). Their member companies interact around the four main topics of «Energy, Food & Land-Use, Cities and Mobility and Redefining Value» (idem, «Overview. Our approach») (cf. wbcsd.org, «Overview. Our approach»). The wbcsd aims at making it feasible for their member companies to «[...] drive sustainability projects forward[,] learn from other leading companies[,] interact with the strongest partners and get access to a one-stop shop for tools and expertise to push their sustainability journey forward» (wbcsd.org, «Overview. Our approach») (cf. wbcsd.org, «Overview. Our approach»). Participating companies «come from all business sectors and all major economies [...]» (wbcsd.org, «Overview. About us»). The council explains, that their topical subject of «Food & Land use» (idem, «Overview. Our approach») which also belongs to the subject area of hunger and solutions to it, central to this master's thesis, is paramount because «[f]ood and land use productivity will determine whether the world can feed a population projected to grow to over nine billion by 2050, while sustaining natural environments» (idem). In cooperation with EAT, they developed a respective program called FReSH, Food Reform for Sustainability and Health (cf. wbcsd.org, «FReSH»). The objectives of this programme are to «accelerate transformational change in the global food systems, [and] to reach healthy, enjoyable diets for all, that are produced responsibly within planetary boundaries» (idem, «FReSH») (cf. wbcsd.org, «FReSH»). As nowadays, «[f]ood insecurity, famine, hunger and nutrient deficiency sit side-by-side with obesity, over-consumption, food loss [and] waste, and rising food-related lifestyle diseases including diabetes» (wbcsd.org, «FReSH: transforming global food systems»). The wbcsd opts for «identify[ing] and remov[ing] the barriers that exist across technology, financing, market acceptance and policy/ regulation» (wbcsd.org, «We help your company scale up its impact»). In this way, their member companies can work with innovative «new business solutions for sustainability challenges» (idem) (cf. wbcsd.org, «We help your company scale up its impact»). Furthermore, the wbcsd strives at being the «leading voice of business in the re-set of existing economic models [...]» (wbcsd.org, «We help your company scale up its impact») (cf. wbcsd.org, «We help your company scale up its impact»). According to this aim, business relevant decision taking shall, for example, be based on an integration of «financial, natural and social capital» (wbcsd.org, «We help your company scale up its impact») and results shall be disclosed and reported across all three capitals. (cf. wbcsd.org, «We help your company scale up its impact») Working with this new model of best practice, «[...] the way capital markets and financiers integrate these results in their decisions regarding valuation and capital allocation [can be changed]» (wbcsd.org, «We help your company scale up its impact») in favor of social and environmental sustainability.

In the more specific economical area of production and retail, which also takes an important role in this master's thesis, the Consumer Goods Forum (cgf) focuses on bringing together retailers and manufacturers as their members. (cf. theconsumergoodsforum.com, «Who we are/ Overview. A thriving global membership»). They organise their work according to five strategic initiatives: health and wellness, environmental sustainability, social sustainability, product safety GFSI and end-to-end value chain and standards with the goals to empower healthy consumers globally, tackle climate change and reduce waste, promote decent working conditions, assure safe food for consumers everywhere and improve industry collaboration to serve consumers better (cf. idem). It becomes clear, that their strategic initiatives have been set up, to reconcile neoliberalism's inherent inequalities.

In sum, the Consumer Goods Forum wants to «[...] provide [its] members with the tools they need to implement business strategies that support the sustainable, long-term growth of their business, increase industry efficiencies and secure consumer trust» (theconsumergoodsforum.com, «What we do/ Implementation support. Beyond the 'why' and understanding 'how'»). Its members then «help to define best practices on key issues such as deforestation, food waste, marketing to children, product formulation, transparency, forced labour and food safety» (theconsumergoodsforum.com, «What we do/ networking-best-practice sharing. Bringing unrivalled opportunity»). The Consumer Goods Forum states that nonetheless, «[...] the issues [it is] working on are too big for [its] industry to solve alone. [It],

that nonetheless, «[...] the issues [it is] working on are too big for [its] industry to solve alone. [It], therefore, regularly collaborate[s] with industry bodies, governments, public health authorities and subject experts to ensure [it is] at the forefront of ongoing conversations and innovative solutions» (theconsumergoodsforum.com, «What we do/ stakeholder engagement. Partnerships that deliver»).

As organisations like the wbcsd and the cgf collaborate with content partners to achieve progress they can, for example, also work with international state organisations like the United Nations' Organisation (cf. wbcsd.org, «Our partners», theconsumergoodsforum, «Our partners»). The latter «[...] take[s] action on issues confronting humanity in the 21st century» (un.org, «Overview»), among them also the here relevant sustainable development and food production (cf. un.org, «Overview»).

More concretely, «[t]he United Nations has three food and agriculture organizations, all headquartered in Rome. The agencies have different but complementary mandates, and collaborate on an ongoing basis. At the same time, there are key differences in the missions and mandates that translate into differences in how, where and with whom they work» (ifad.org, «Frequently asked questions»).

The United Nations' International Fund for Agricultural Development (IFAD) «mobilize[s] resources to invest in development opportunities for poor rural people» (idem).

They «work in close collaboration with borrowing country governments and local communities to design, supervise and assess country-led programmes and projects that support smallholders and poor rural producers» (idem). The United Nations' World Food Programme (WFP) on its side «is the food aid arm of the United Nations system. It has an extensive global field presence with immense logistical and procurement capacity to deliver and distribute emergency food assistance» (idem). Aditionally, it «conducts food insecurity assessments and vulnerability analyses [to become able to] anticipate and respond rapidly to food crisis» (idem). Then, the United Nations' Food and Agriculture Organization (FAO), «plays an important role in developing global norms and sharing information, analysis and knowledge on agriculture» (idem). Moreover, it «provides policy and technical assistance to developing country governments, helping to strengthen capacity and promote appropriate policy and regulatory frameworks» (idem). Being the central UN agency for the present work, FAO's main goals can shortly be described. (cf. ifad.org, «Frequently asked questions»)

The organization aims at whelp[ing] [to] eliminate hunger, food insecurity and malnutrition» (fao.org, was was down) (cf. fao.org, was down). They can help their member nations in wensur[ing] that people have regular access to enough high-quality food» (fao.org, was was down) (cf. fao.org, was was down), as will be seen in the chapter about the third, corporate food regime, this access is not a matter of course. The FAO can nonetheless help by was was policies and political commitments that promote food security and good nutrition and by making sure that up-to-date information about hunger and malnutrition challenges and solutions is available and accessible» (fao.org, was was down).

At the same time, they work to «make agriculture, forestry and fisheries more productive and sustainable» (fao.org, «About. What we do»), as they argue that «[g]rowth in the agriculture sector is one of the most effective means of reducing poverty and achieving food security» (idem). They additionally focus on «ensur[ing] that increased productivity does not only benefit the few [...]» (idem), for example, the earlier mentioned neoliberalist plutocracy and societies in industrialized countries. Like this, one of their goals also is to «reduce rural poverty» (idem), which expresses itself most of all through hunger and food insecurity (cf. fao.org, «About. What we do»). And to «enable inclusive and efficient agricultural and food systems» (fao.org, «About. What we do»). (cf. fao.org, «About. What we do») To meet this objective, smallholders have to be supported in improving farm productivity, off-farm employment opportunities have to be increased and better ways have to

be found «for rural populations to manage and cope with risks in their environments» (fao.org, «About. What we do») (cf. fao.org, «About. What we do»).

Furthermore, there are also international non state organisations active on the macro level to balance neoliberal inequalities, for example, concerning food. As such, the Caritas Internationalis confederation founded in the 1950's as a body of the Universal Church «responds to disasters, promotes integral human development and advocates on the causes of poverty and conflict» (caritas.org, «Who we are. Caritas is church») (cf. caritas.org, «Who we are. Caritas is church»). Its work focuses on five main areas: conflicts and disasters, food, health, migration and development (cf. caritas.org, «What does Caritas do?»). Concerning food, «Caritas has always helped people feed themselves rather than relying on handouts» (caritas.org, «What we do. How Caritas works on food»). They argue, that «building communities' preparedness, resilience and adaptation skills» (idem) and thus, helping them «escape subsistence agriculture» (idem), can make hunger disappear (cf. caritas.org, «What we do. How Caritas works on food»). Moreover, «Caritas also advocates for the universal right to food» (caritas.org, «What we do. How Caritas works on food»), and it seeks «investment in ecological family farming which supports the poor, increases productivity and enables less wealthy consumers to benefit from lower food prices» (caritas.org, «What we do. How Caritas works on food»). In context of the food area, Caritas Internationalis works on four topics: agriculture, climate change, food waste and malnutrition. (cf. caritas.org, «What we do. How Caritas works on food») The confederation more precisely «raises awareness about the growing seriousness of food waste as prices rise and food insecurity increases» (caritas.org, «What we do. How Caritas works on food»). To moderate food waste, national Caritas organisations «redistribute good quality, untouched food through their soup kitchens» (idem). (cf. caritas.org, «What we do. How Caritas works on food») The Austrian Caritas organisation is additionally interesting here, as the case study for this master's thesis takes place in Vienna. Caritas Austria's initiative Le+O, standing for «Lebensmittel und Orientierung» ('food and orientation'), offers donated food to people in need and at the same time consultation to start self-help with the objective, that they can more easily improve their social and financial situation on their own. (cf. caritas-leo.at, «Le+O= Nachhaltige Unterstützung für armutsbetroffene Haushalte»; «Raus aus der Armutsspirale»)

A similar from the macro to the micro level structure can be discerned in the red cross and red half-moon movement, having as executive organs the International Committee of the red cross, the International Federation of the red cross and red half-moon associations and 190 national associations (cf. icrc.org, «Wer wir sind. Die Bewegung»). In the current context,

mostly the national associations seem to be relevant, as they are meant to be a support to national authorities in the humanitarian sector. And besides their aid in disaster situations, they also lead health and social programmes (cf. icrc.org, «Wer wir sind. Die Bewegung»). On behalf of the Austrian red cross association and its programmes, the «Verwenden statt Verschwenden» ('using instead of wasting') initiative should above all be mentioned here, as it works to reduce food waste and poverty. With the radio station Ö3, the Austrian red cross association founded the Team Österreich Tafel, a food aid, redistributing products donated by supermarkets, local grocery stores, bakeries, vegetable growers or producers themselves, on a daily basis. (cf. roteskreuz.at, «Verwenden statt Verschwenden. Mitarbeit bei der Team Österreich Tafel»)

A difference can now be perceived between non state organisations seeing food and food production aid as one of more tasks and non state organisations focusing most of all on food specific activities. Among the latter are, for example, national food banks that may also be organised in federations or be part of the Global Food Banking network (GFN). The European Federation of Foodbanks (FEBA), forms also part of the GFN (cf. foodbanking.org, «Our global reach»). The «GFN provides food banks with the resources and know-how needed to better serve those facing hunger in their local communities» (foodbanking.org, «Training and knowledge exchange»), it «is the steadfast foundation for food bank organizations to evolve, thrive, and fulfill their mission to reduce hunger in their locality» (idem). FEBA on its side, sees its mission in «reduc[ing] hunger and malnutrition through the fight against food waste and the support and development of food banks in countries where they are most needed» (eurofoodbank.org, «Who we are. Mission»). In the current context, it seems to be relevant that the Viennese Food Bank, Wiener Tafel, founded in 1999 (cf. wienertafel.at, «Hintergründe. Geschichte») also is a member of FEBA since 2015 (cf. eurofoodbank.org, «Who we are. Mission»).

## I.2 Subject interest

Considering the now presented examples of Vienna based organisations working on food waste reduction and poverty alleviation, the variety and prominence of such organisations in Vienna becomes apparent. Specifically, organisations working on a smaller scale also seem to become more and more relevant actors, like the two organisations foodsharing Austria and Lebensmittelrettung Österreich. This trend, for example, also exists in France, with organisations like La tente des glaneurs (leparisien.fr, «La tente des glaneurs: agir sur les

marchés contre le gaspillage alimentaire») or Le cabas du sourire (cf. defi-desalternatives.com, «Le cabas du sourire»), only redistributing food from markets once a week.

After looking through several concepts of food saving organisations, it became noticeable that supermarkets can be important actors and partners for food saving activities. In France, even a law has been voted in 2016, prohibiting supermarkets from 400 m<sup>2</sup> to discard products that are still edible and obliging these supermarkets to cooperate with food saving organisations (cf. consoglobe.com, «La loi met fin au gaspillage alimentaire dans les supermarchés de France. Enfin.»). Concerning Vienna, the two organisations foodsharing Austria and Lebensmittelrettung Österreich inter alia cooperating with supermarkets could be identified and reached.

The prevalence of all kinds of food saving organisations and vast ongoing research about food waste, hunger and sustainability perceived against a background of high numbers of global hunger, sparked the interest to write the current master's thesis and to ask the research question, what the possible advantages and disadvantages of food saving activities in supermarkets by specialized NGOs are? Bearing in mind, that the activities of food saving organisations are only one possible way to work against hunger.

# I.3 Methodology

To find an answer to this question, it was also important to investigate more precisely about the NGOs' and supermarket companies' work procedures and the meaning saving food has for them. The consultation of experts is very common in International Relations, political field analyses and political sociology. Investigations then take place either with quantitative survey analyses or qualitative case study analyses (cf. Kaiser, 2014: 1); for this master's thesis, the latter has been chosen.

Typically, a qualitative case study analysis investigates on one or just a few similar cases, the main objective most of all being to understand the cases in more detail (cf. Kaiser, 2014: 4). The study interest can be more descriptive or more causal, either analysing more the characteristics of social phenomena or more looking at their causalities, like origin and alteration (cf. idem). In the following case, the study interest can first predominantely be seen as descriptive, but in a second step causalities will be important too.

The NGOs were asked to describe their perspective in respective semi-structured expert interviews and the supermarket companies were queried through questionnaires with open questions, as they prefered the latter instead of an interview situation. Concerning the

interviews, the experts figure as information suppliers and the interviewer has the task to lead the interview in a way generating the information needed (cf. Kaiser, 2014: 4). Differently from other interview types (ethnographic, narrative), expert interviews seek mostly factual information and therefore need a more precise structuring and the development of more detailed guidelines. (cf. idem: 3). The guideline questions are derived from a theoretical background that has to be prepared in advance through already existing literature and information resources. The with the interviews newly gained information then refers back to the initial information basis. (cf. idem: 4-5). In general, expert interviews are carried out under the premise, that the exclusive expert knowledge will help obtain the seeked results. (cf. idem:5). The entire procedure of the expert interview and the newly generated information have to be verifiable and understandable by third persons, this is understood under the characteristic of intersubjective accountability (cf. idem: 6). Moreover, there are the characteristics of impartiality and openness, meaning that the interviewer has to behave as neutral as possible towards the interviewee and be able to grasp new relevant information even if it was not considered during the preparation of the interview (cf. idem: 7-8). The questionnaires on their side have been designed like an interview guideline, with open questions, to make sure that factual information can be collected but also that so far unconsidered lines of reasoning could be mentioned. To discuss remaining questions, short telephone interviews were made in a second phase, if necessary. The development of the interview guidelines and questionnaires will be illustrated in more detail in context of the explanations about the qualitative content analysis in the section following below.

As the level of standardization is rather low with qualitative instruments, generating statistics doesn't seem to be useful, so that interpretating methods are needed after the interview (cf. Kaiser, 2014: 7-8). For this master's thesis, Jochen Gläser and Grit Laudel's content analysis for expert interviews demonstrated in their manual *Experteninterviews und qualitative Inhaltsanalyse als Instrumente rekonstruierender Untersuchungen*, has been favoured.

## I.3.1 Qualitative content analysis by Gläser and Laudel

The qualitative content analysis is derived from the quantitative content analysis working with a fixed system of categories according to which text material can be analyzed. (cf. Gläser/Laudel, 2010: 205). For the quantitative content analyses, one has to design a determined system of categories and one has to organize the to be analysed text in analysis units. The

latter have to be searched for relevant information and this information to be matched with the predetermined and fix categories. This procedure is also called the encoding of the text. (cf. Gläser/ Laudel, 2010: 197-198)

The qualitative content analysis was then developed, because the quantitative version seemed to oversimplify the analysed text units in many cases, as they were reduced to the fixed categories' capacities and this was counterproductive to social sciences' most important objective: understanding in context. (cf. Gläser/ Laudel, 2010: 198)

Hence, the German psychologist and sociologist Philipp Mayring presented a proposal for solution with his concept of qualitative content analysis, which allows to verify the system of categories and, to adapt the latter if necessary according to the collected text material. Nonetheless, just as the quantitative content analysis, this concept also quantifies information and its aim is to work with a determined and after some adaption fixed system of categories. (cf. Gläser/ Laudel, 2010: 198) In «Varianten qualitativer Inhaltsanalyse: Ein Wegweiser im Dickicht der Begrifflichkeiten», Margrit Schreier presents an overview of different concepts of qualitative content analysis that have been developed since Mayrings proposal. From the eight variations she retains, the qualitative content analysis concept by Gläser and Laudel, working with extraction from the to be analyzed material instead of structuring it with codes, seems to be the most adequate in context of this master's thesis.

Refering to Mayring, Gläser and Laudel explain that for the qualitative content analysis variables have to be derived from theoretical preliminary considerations. (cf. Gläser/Laudel, 2010: 200). For this master's thesis, the latter were most of all generated by working over subject related scientific literature and policy documents as well as organizations' and companies' websites. The, in the first part of this work already mentioned documentary *Taste the Waste* by Valentin Thurn, was also an important preliminary source.

The, from these theoretical preliminary considerations derived variables were at first: the NGOs only operating food saving activities, their partners, the social market of Lebensmittelrettung Österreich and the Fairteiler system of foodsharing Vienna, as well as the product groups that have mostly been saved. In a preliminary conversation with Lebensmittelrettung Österreich to organize the expert interview, it became already clear that food saving activities were always linked to an important number of conditions. Thus, it was possible to immediately add the condition variable. Then, the questions of the semi-structured expert interviews to be carried out with both NGOs were built around these variables and categories were derived from these questions to analyze the interview material. The derived categories are the conditions for food saving activities, the preparation of food saving

activities, the functioning of collections, differences in the do's and don'ts for cooperation with the supermarkets, the working procedure after the collections, mostly saved product groups, demand for saved products or interest in participation in food saving activities, recurring difficulties, as well as advantages and disadvantages of food saving activities in cooperation with supermarkets.

Focused on the supermarkets' side, the from the theoretical preliminary considerations and from results of the expert interviews with the NGOs derived variables were separately the conventional and the organic supermarket, conditions of food saving activities, challenges of the latter, and the meaning of food saving activities to the supermarkets, as well as the cooperation with organisations and mostly passed on product groups. The open questions for the questionnaires given to the supermarket companies were then also built around these variables.

Consequently, the from these questions derived main categories for supermarkets are conditions for food saving activities, challenges of them, the related work procedure, the meaning of saving food to the supermarkets, influence of food saving activities upon other areas of work, mostly saved product groups, and parameters of the cooperation between supermarkets and cooperations, as well as advantages and disadvantages of food saving activities in cooperation with specialized organisations.

In contrast to Mayring's approach, Gläser and Laudel's qualitative content analysis allows for changes in these categories geared to the to be analyzed material. Thus, their parameters can be changed, or other newly found categories can be added, but no earlier developed categories can be deleted because the theoretical preliminary considerations shall not disappear. (cf. Gläser/ Laudel, 2010: 205) During the extraction of relevant information according to the already developed categories, the new category of motivation behind the projects became important and for the supermarkets, it could be added in a more detailed way as economic, social and ecological motivation. Furthermore, at this point of their concept, Gläser and Laudel add causal categories to the category system (cf. idem: 208-209), to explain connections between categories, if existing. These causal categories can be an important contribution, as relations that could not be foreseen through the theoretical preliminary considerations can be seized with them (cf. idem: 217).

Consequently, in the current analysis, a causal connection can be added between the conditions category at the supermarkets' side and the organisations' preparation and collections' functioning categories, the former seemingly being one reason for the latter.

Another causal connection can be found between the supermarkets' economic and the ecological motivation, the former can be seen as a reason for the latter.

Following Gläser and Laudel extraction means to entirely read the available text and to decide for every information if it meets one or more of the prepared categories (cf. Gläser/Laudel, 2010: 200). They see this decision taking as one form of interpretation, even if a theoretical and empirical justification is needed for every decision. The whole process has to become intersubjectively understandable. (cf. idem: 218) One has to note, that in context of the qualitative content analysis, raw data is extracted without considering its exact position in a text (cf. idem: 204). Whereas, important information not fitting the general picture has to be considered imperatively. The extracted material has then to be summarized and to be cleaned from redundancies and contradictions (cf. idem: 202). The result is a new information basis, only containing information that seems to be paramount to answer the research question. This basis is naturally structured by the categories that have been developed at the beginning (cf. idem: 200). The for every stakeholder gained new information basis can now be presented, as Gläser and Laudel's proposition of evaluation for analyses of only a few cases with a focus on relative causalities shall be the main template here (cf. idem: 247-249).

Relative evaluation tables can be found in Appendix 1, as well as the interview guidelines and exact questionnaire questions in Appendix 2. Quotations from the interviews with both organisations are memory quotations.

To proceed, the research work about food waste and its consequences, that has been done during the last years and the methods and instruments to improve the circumstances that are being developed, deserve a closer look in this place

# I.4 State of the art

In the first place, it should be mentioned, that currently used food loss and waste (FLW) definitions are very different. The authors of the EU-funded FUSIONS (Food Use for Social Innovation by Optimising waste prevention Strategies) report, for example, already distinguish two different definitional frameworks besides their own. The first one by the FAO High Level Panel of Experts on Food Security and Nutrition (HLPE), adopting a «food security and nutrition lens» (eu-fusions.org, «Recommandations and guidelines for a common European food waste policy framework», 2016: 28), the second one in short «defin[ing] food waste as a distinct part of food loss» (idem), by the FAO and their own, third one, «focus[ing] on a resource efficiency perspective» (idem) (cf. eu-fusions.org, «Recommandations and

guidelines for a common European food waste policy framework», 2016: 28). Later on, the second FLW definition by the FAO, in its short version, will be relevant for this master's thesis. According to the FUSIONS report, main differences between the definitions lay in their perception whether or not, edible food fractions that could enter the food supply chain, but that were discarded or redirected to non-food use in the pre-harvest phase (cf. idem: 29), «edible food not being valorised» (eu-fusions.org, «Recommandations and guidelines for a common European food waste policy framework», 2016: 29), «inedible parts of food not being valorised» (idem), «edible parts to be valorised including feed» (idem) and «inedible part[s] to be valorised including feed» (idem) are seen as food waste (cf. eu-fusions.org, «Recommandations and guidelines for a common European food waste policy framework», 2016: 29). In the same year, the FUSIONS report was published (2016), the European Court of Auditors (ECA) also published its special report on combating food waste in the EU: Special report. Combating Food Waste: an opportunity for the EU to improve the resourceefficiency of the food supply chain (2016); giving more detailed insights into the different FLW stages down the entire supply chain and also discussing the divergences in definitional frameworks. Some of the by the ECA report described details, have been integrated into this master's thesis' chapter about FLW, as they seemed to provide a more concrete illustration.

Then, it seems to be interesting to consider methods proposed by the FUSIONS project and the Food Loss and Waste Accounting and Reporting Standard by the Food Loss and Waste Protocol, to quantify food waste. The FUSIONS team also published its Food waste quantification manual to «monitor food waste amounts and progression» (FUSIONS manual, 2016: 1). The manual shall be an assistance for EU Member States, «provid[ing] practical guidelines [...] on the quantification of food waste at different stages of the supply chain» (idem: 3). It is divided respectively into a recommended approach for primary production (cf. FUSIONS manual, 2016: 45ff), processing and manufacturing (cf. idem: 63ff), wholesale, retail and markets (cf. idem: 74ff), food service (cf. idem: 89ff) and households (cf. idem: 103ff). Quantification methods recommanded for the wholesale and retail sector that is central to this master's thesis, are «scanning/ counting of food waste items, direct weighing[,] waste compositional analysis [and] [i]n some circumstances, mass balance may also be sufficiently accurate» (FUSIONS manual, 2016: 82) (cf. FUSIONS manual, 2016: 82). The FUSIONS manual «responds to a need for coherent quantification, that in turn enables the development of effective food waste prevention strategies» (FUSIONS manual, 2016: 3).

The FUSIONS project's methodologies stand in harmony with the FLW Protocol's approach (cf. FUSIONS manual, 2016: 9). But while the FUSIONS project targets EU Member States, the FLW Standard is a «broad multi-user tool» (FUSIONS manual, 2016: 9). It «was developed via a multi-stakeholder process during 2014 and 2015» (FLW Executive Summary, 2016: 4) steered by the already above mentioned Consumer Goods Forum and World Business Council for Sustainable Development, the FUSIONS project, UNEP, the World Resource Institute and wrap (cf. FLW Executive Summary, 2016: 4). The standard «provides requirements and guidance for quantifying and reporting on the weight of food and/or associated inedible parts removed from the food supply chain [...]» (FLW Executive Summary, 2016: 1). It wis designed to be practical so that entities of all kinds [like countries, cities, companies and others] can develop an FLW inventory based on their particular quantification goals» (idem). Ideally, the terminology and the requirements provided by the standard «ensure[...] international consistency, enable[...] comprehensiveness, and support[...] transparent disclosure of FLW inventories both within and among entities» (idem) (cf. FLW Executive Summary, 2016: 1). The FLW Standard seems to promise improvement, as many entities «currently lack sufficient insight into how much, why and where food and/ or associated inedible parts are removed from the supply chain» (FLW Executive Summary, 2016: 1) (cf. FLW Executive Summary, 2016: 1). Aquired FLW inventories «can underpin, inform and focus strategies for minimizing FLW» (FLW Executive Summary, 2016: 1). The minimization of FLW can finally «provide economic benefits, enhance food security, improve natural resource use efficiency, and reduce environmental impacts» (FLW Executive Summary, 2016: 1) (cf. FLW Executive Summary, 2016: 1).

The cooperation between the wbcsd (inter alia steering the FLW Standard) and EAT referred to at the beginning of this introduction, leads the attention towards Sweden, developing new programmes around a much needed healthy and sustainable food production. The EAT Foundation, central actor here, «was co-founded by the Stordalen Foundation, the Wellcome Trust, and the Stockholm Resilience Centre» (eatforum.org, «Who is EAT»). Besides the above introduced FReSH programme, the C40 Food Systems Network, the Nordic Cities EAT initiative and the EAT-LANCET Commission form part of EAT's main work, EAT being a co-leader. (cf. eatforum.org, «Programmes»). C40 «is a network of the world's megacities committed to addressing climate change. C40 supports cities to collaborate effectively, share knowledge and drive meaningful, measurable and sustainable action [...]» (c40.org, «About»). With EAT, C40 developed and runs the Food Systems Network having on its agenda food procurement, food production, food supply and

distribution and of course, the in this master's thesis paramount food waste (cf. eatforum.org, «Programmes. C40 Food Systems Network»). The programme assists «purchases that are controlled by the municipality, for example[,] [the] procurement of food for schools, hospitals and elderly homes» (eatforum.org, «Programmes. C40 Food Systems Network»). Additionally, it «promot[es] and strengthen[s] urban and peri-urban food production to support short food chains [...]» (idem). In the area of food supply and distribution, it «develop[s] sustainable food transportation and logistics by improving alternative fuels or means of transport» (idem), moreover it works to «enhanc[e] farmer's markets, informal markets, retail and wholesale markets and [to] strength[en] the food supply chain to withstand disruptive events such as natural disasters» (idem) (cf. eatforum.org, «Programmes. C40 Food Systems Network»). Concerning food waste, the programme aims at «raising awareness of and promoting the food waste 'pyramid'» (eatforum.org, «Programmes. C40 Food Systems Network»). As well as at «[r]educing [...] food loss and waste, facilitating food recovery for people and animals, and improving collection of waste for biogas or fertilizers» (idem). (cf. eatforum.org, «Programmes. C40 Food Systems Network»)

The Nordic Cities EAT Initiative on its side, «is an alliance of cities and stakeholders in the Nordic countries exploring the food system as a tool for broader environmental, economic and social sustainability as well as forging a deeper cohesion between urban and rural areas» (eatforum.org, «Programmes. Nordic Cities EAT Initiative»). EAT believes, that «regional collaborations are key for context-specific exchanges and collaboration» (idem), as climates, political systems, welfare models and development priorities are similar and can favour joint efforts (cf. eatforum.org, «Programmes. Nordic Cities EAT Initiative»). It seems to be important, to address cities on the food and sustainability subject, as «[c]ities are facing unprecedented demographic, environmental, health, economic and social challenges. Currently, over half of the world's population lives in urban areas, and this is projected to increase to 70% by 2050» (un.org, «EATx UNGA 2016. Urban food systems: a nutrition challenge», 2016:1). It has been observed, that «[g]rowing urban populations pose enormous challenges regarding food availability, transport, storage, and preparation, and the health implications of these are profound» (idem). Nonetheless, there are possible actions to be taken to alleviate health and sustainability challenges, among them the programme points already mentioned for the C40 Food Systems Network and the in this work especially important demand towards supermarkets to reduce food waste (cf. un.org, «EATx UNGA 2016. Urban food systems: a nutrition challenge», 2016:1).

The probably most recent project is the planned EAT-LANCET Commission report, that will be published in the upcoming Spring 2018 (cf. foodplanethealth.org, «The report»).

The EAT-LANCET Commission on Healthy Diets from Sustainable Food Systems refers to the importance of change concerning the worldwide food production and consumption, in the pursuit of «[m]eeting the Sustainable Development Goals (SDGs) and the Paris Agreement targets to reduce carbon emissions» (foodplanethealth.org, «The report») (cf. foodplanethealth.org, «The report»). It also explains, that central questions to the area still remain unanswered and prevent progress, and that «a lack of scientific consensus is slowing down governments, businesses and civil society actors who want to take action [...]» (idem) (cf. foodplanethealth.org, «The report»). In the upcoming report, EAT-LANCET Commission scientists coming from all over the world and holding key positions in the field, thus, want to investigate on the questions, what a healthy diet is and what a sustainable food system? What trends shape diets today? If healthy diets can be achieved from sustainable food systems and how? And what solutions and policies can be applied? (cf. idem). With their approach, EAT and the EAT-LANCET Commission share a common perspective with the Stockholm Resilience Centre. Issues and inequalities set off by the actual neoliberalist system could be better dealt with, if a «transition [would happen] toward[s] a world logic where the economy serves societies so that it evolves within the safe operating of the planet» (stockholmresilience.org, «How food connects all the SDGs»). Johan Rockström and Pavav Sukhdev from the Stockholm Resilience Centre in this spirit advocate for an integrated development paradigm «moving away from the current sectorial approach where social, economic, and ecological development are seen as separate parts» (idem). (cf. stockholmresilience.org, «How food connects all the SDGs»).

Besides international and regional studies, there are also considerable national research programmes, such as WRAP, the Waste and Resources Action Programme in the United Kingdom (wrap.org.uk), whose research teams also took part in the Fusions Programme (cf. eu-fusions.org, «Project-Partners»). Just as the Institute of Waste Management of the University of Natural Resources and Life Sciences of Vienna (ABF-BOKU) (cf. wau.boku.ac.at/abf/projekte/, «Projekte»). At the ABF-BOKU, food waste has been an important area of research during the last ten years and its studies cover the most various dimensions of it (cf. http://www.wau.boku.ac.at/abf/schwerpunktthemen/, «Schwerpunktthemen. Lebensmittel-im-Abfall»). In context of this master's thesis, the ABF-BOKU study about food waste in the retail sector: «Food loss rates at the food retail, influencing factors and reasons as a basis for waste prevention measures» by Sandra

Lebersorger and Felicitas Schneider is specifically important, its results are integrated into the chapter about waste in Austrian supermarkets. It seems, inter alia, to have significant predecessors in Scandinavia, for example, «Retail food wastage: a case study approach to quantities and causes» (2012) by Mattias Eriksson at the Swedish University of Agricultural Science in Uppsala and «Food losses in six Swedish retail stores: wastage of fruit and vegetables in relation to quantities delivered» (2012) by Mattias Eriksson, Ingrid Strid and Per-Anders Hansson.

Of course, the state of the art concerning the food waste subject could still be extended, but seemingly the most relevant information in context of this master's thesis has been outlined now; thus, its structure can be pointed out.

## I.5 Chapter description

The first chapter of this master's thesis introduces the topic of hunger, giving an overview of the global hunger reduction according to the FAO, and defining the understanding of hunger in this master's thesis.

Chapter two explains the core parameters of the third, corporate food regime and how it hampers global hunger reduction. It then more specifically focuses on the regime intrinsic issue of FLW, which also seems to be a major disruptive element in the attempt to reduce hunger.

The third chapter emphasizes the supermarket, as it has become an important food supply chain operator and a central entity in the corporate food regime. It's development will be illustrated, as well as its position in the food supply chain. Then, food waste in Austrian supermarkets will be exemplified.

In the fourth chapter, the aim is to embed the described circumstances into the political theory of Robert Cox' Neogramscianism. It will be explained, how the concepts of hegemony, the historic bloc and transformismo by Antonio Gramsci can again be found in the third, corporate food regime. To expand political theory in the fifth chapter with the concept of the new social movement, interpreting the latter as a reversed transformismo. The fifth chapter also introduces central actors to the new social movement: NGOs, individual citizens, corporations and government.

In chapter six, possible impacts of FLW reduction efforts onto the hunger problem at an international level and in the respective economies, are described.

Chapter seven presents a selection of stakeholders being active in context of the Viennese food saving movement and their sustainability efforts. These are, the NGOs foodsharing Austria and Lebensmittelrettung Österreich, the SPAR supermarkets of the SPAR Holding AG, MERKUR supermarkets of the REWE GROUP and dennree's denn's Biomarkt. As well as the Austrian government with the Ministery for sustainability and tourism, promoting several participation possibilities to act against food waste.

Chapter eight finally deals with the interview and questionnaire evaluation and discusses an answer to the pursued research question.

#### 1. Hunger

# 1.1 The hunger situation of the 21st century state 2015: an overview

Hunger still seems to be a reality and an issue of the contemporary world. In the *State of Food Insecurity in the World 2015 report*, the FAO in cooperation with IFAD and the WFP, for example, informs that in 2015 around 795 million people were undernourished on a global scale. Although, one should be aware of the fact, that this means around 167 million hungry people less in the world than around the year 2005. (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.I).

«Meanwhile, twenty-nine countries have accomplished the more ambitious 1996 World Food Summit (WFS) goal of halving the number of chronically underfed people [...]» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.26). This WFS goal is also mentioned amongst the UN Millenium Development Goals, under Target 1c. (cf. UN, http://www.un.org/millenniumgoals/poverty.shtml) Even if developing regions have a significantly higher population growth, this important decline in hunger is more accentuated in their realm. From 23,3 percent in 1990-92, the overall number of undernourished people in their population decreased to 12,9 percent. (cf. FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.III) «Changes in large populous countries, notably China and India, play a large part in explaining the overall hunger reduction trends in developing regions» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.9). Additionally, there is fast progress noted in Latin America, the eastern and south-eastern regions of Asia, the Caucasus, Central Asia and the northern and western regions of Africa. In southern Asia, Oceania, the Carribean and southern and eastern Africa there is progress too, but it's too slow for the MDG 1c. (cf. FAO/ IFAD/WFP, 2015: http://www.fao.org/3/ai4646e.pdf, p.III)

72 out of 129 monitored developing countries, have reached the MDG 1c hunger target. (cf. FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.III). «Most enjoyed stable political conditions and economic growth, often accompanied by social protection policies targeted at vulnerable population groups» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.III). Indeed, many countries that didn't meet the international hunger targets, faced "[...] natural and human-induced disasters or political instability [that] resulted in protracted crises with increased vulnerability and food insecurity of large parts of the population» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf,

p.III). The two indicators for MDG 1c that decreased in developing regions, are the prevalence of undernourishment and the proportion of underweight children under five years of age. (cf. FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.III) This prevalence of undernourishment will probably have decreased to 12,9 percent during the period 2014-16. (cf. idem, p.9)

# 1.2 A definition of hunger

This short overview of the hunger reduction efforts of the last 20 years on a global scale given, a definition of the term and the idea of hunger for the specific context of this master's thesis becomes relevant. However, as there is no general agreement on how to define it, the FAO's understanding used for *The State of Food Insecurity in the World 2015* seems to be interesting for this work. In the respective report, hunger is defined as «chronic undernourishment» (FAO, 2015: http://www.fao.org/hunger/en/), and undernourishment as such «[...] means that a person is not able to acquire enough food to meet the daily minimum dietary energy requirements, over a period of one year» (idem).

Furthermore, the FAO describes hunger as a «trap from which people cannot easily escape» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.27) because «[h]unger and undernutrition mean less-productive individuals, who are more prone to disease and thus often unable to earn more and improve their livelihoods» (idem).

The hunger trap can arise from three different types of food insecurity: chronic, (cf. EC/ seasonal transitory food insecurity. FAO. 2008: and http://www.fao.org/docrep/013/al936e/al936e00.pdf, p.1) The first one is «long-term or persistent» (EC/FAO, 2008: http://www.fao.org/docrep/013/al936e/al936e00.pdf, p.1), which means that «people are unable to meet their minimum food requirements over a sustained period of time» (idem). It usually «results from extended periods of poverty, lack of assets and inadequate access to productive or financial resources» (idem). Thus, it seems most of all to be caused by structural problems. On the contrary, transitory food insecurity, is «short-term and temporary» (idem). It «occurs when there is a sudden drop in the availability to produce or access enough food to maintain a good nutritional status» (idem). It is usually caused by «short-term shocks and fluctuations in food availability and food access, including year-toyear variations in domestic production, food prices and household incomes» (idem). The second, seasonal food insecurity can then be located between the chronic and the transitory one. (cf. EC/ FAO, 2008: http://www.fao.org/docrep/013/al936e/al936e00.pdf, p.1) It could also be seen as a «recurrent, transitory food insecurity» (EC/ FAO, 2008: http://www.fao.org/docrep/013/al936e/al936e00.pdf, p.1). It appears, «when there is a cyclical pattern of inadequate availability and access to food. This is associated with seasonal fluctuations in the climate, cropping patterns, work opportunities (labour demand) and disease» (EC/ FAO, 2008: http://www.fao.org/docrep/013/al936e/al936e00.pdf, p.1).

For this master's thesis, hunger caused by a chronic food insecurity that exists because of structural deficencies, is the relevant example.

## 2. The third, corporate food regime and hunger

## 2.1 Consistent impediments to hunger reduction

Even if important achievements can be noted, the «[s]ignificant progress in fighting hunger over the past decade should be viewed against the backdrop of a challenging global environment [...]» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.9). Among the challenges are «volatile commodity prices, overall higher food and energy prices, rising unemployment and underemployment rates and, above all, the global economic recessions that occured in the late 1990s and again after 2008» (idem). Not to forget, «[i]ncreasingly frequent extreme weather events and natural disasters [...] hampering efforts to enhance food security» (idem). As well as the «[p]olitical instability and civil strife [...] bringing the number of displaced persons globally to the highest level since the Second World War» (idem, p.9-10).

The now mentioned economic challenges seem to be consequences of «[t]he changing global economic environment [that] has challenged traditional approaches to addressing hunger» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.10). Main characteristics of this modified environment are free enterprise, trade liberalization, deregulation of corporate activity, and privatization of many (common) resources and public services" (Elver, 2014: 263). Even though, «[t]rade, in itself, is neither a threat nor a panacea when it comes to food security» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.26), the new globalization's free trade seems to be «[...] only freedom for global corporations, and it entails the suppression of freedom for communities or nations to regulate or otherwise maintain their primary values, such as the environment, health or labour standards" (Elver, 2014: 263-264). Unfortunately, it doesn't only endanger communities' and

nations' primary values, the free trade's «[p]olicies that affect exports and imports of food contribute to determining relative prices, wages and incomes in the domestic market, and hence shape the ability of poor people to access food» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.26).

This new economic environment's characteristics and rules, derived from the economic science saying that every country would naturally benefit from a system of liberalized free trade through its specializations, regardless its development status. (cf. Mayer-Tasch, 2011: 75) Institutions like the WTO, IMF and the World Bank, adhere to these ideas and impose rules on the different countries, «that require nations to eliminate 'impediments' that might restrict corporate access to markets, labour and resources" (Elver, 2014: 263). (cf. Elver, 2014: 263) But an unforeseen uneven structure of import and export countries arised, not allowing development countries to reach an efficient production, even though, their agriculture would have the dispositions to be fully operative. (cf. Mayer-Tasch, 2011: 75) As Hilal Elver remarks, "the global economy is not working for all" (Elver, 2014: 265).

# 2.2 The third corporate food regime

The described circumstances stand for «[t]he third, corporate food regime (1980s to the present) [that] emerged from the global economic shocks of the 1970s and 1980s ushering in the current period of neo-liberal capitalist expansion» (Giménez/ Shattuck, 2011: 111). Besides «[...] the unprecedented market power and profits of monopoly agrifood corporations» (idem), or the «liberalized global trade in food» (idem) this regime's characteristics are

«globalized animal protein chains, growing links between food and fuel economies, a 'supermarket revolution', [...] increasingly concentrated land ownership, a shrinking natural resource base, and growing opposition from food movements worldwide» (idem).

One of the main goals of the corporate food regime is a «mono-cultural export system» (Elver, 2014: 264), having the side effect that «cheaper goods can come to the marketplace from anywhere, without any consideration of environmental or social costs» (idem). Regarding the fight against poverty and hunger, one has to be aware of the fact, that developing countries have «very little manoeuvring space in resisting such pressure because of their dependence on financial aid from the World Bank or the IMF for much-needed national development projects» (idem) (cf. Elver, 2014: 264). Additionally, the global corporations also «have powerful links to and influence within state apparatuses [...]» (Gill, 2014: 32). Their «little incentive to put their profits back into environmental protection or

local development» (Elver, 2014: 264) leads to a «social nucleus of market civilization» (Gill, 2014: 32) that is composed of a "relatively small percentage of affluent people who are the primary beneficiaries of the neo-liberal political economy» (idem).

Bearing these circumstances in mind, one could perhaps say, that the third corporate food regime produces its own demographic hierarchy. As a consequence, «[t]he global food crisis of 2008 ushered in record levels of hunger for the world's poor at a time of record global harvests as well as record profits for the world's major agrifoods corporations» (Giménez/ Shattuck, 2011: 111). Even though, «[w]ith record grain harvests [at that time], there was more than enough food in the world to feed everyone [...]» (idem: 112). Following Eric Holt Giménez and Annie Shattuck, «[i]n essence, the roots of the food crisis lie in the construction of the corporate food regime» (idem). The type of hunger inherent to the corporate food regime can then more specifically be described as structural hunger, as it is caused by the relations constituting the regime. (cf. Mayer-Tasch, 2011: 132)

Consequently, the third corporate food regime and its effects, also seem to have «[...] challenged traditional approaches to addressing hunger» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.10).

Thus, «[s]ocial safety nets and other measures that provide targeted assistance to the most vulnerable population groups have received growing attention. The importance of such targeted measures, when combined with long-term and structural interventions, lies in their ability to lead to a virtuous circle of better nutrition and higher labour productivity» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.10).

Part of these measures can be «conditional and unconditional cash transfer programmes that focus on promoting food security and nutrition, health and education, particularly for children. Food distribution schemes and employment guarantee programmes are also important» (idem: 26). A paramount step towards progress also is the support of smallholder family farmers, enhancing their productivity and incomes (cf. FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.III) as, «[a]cross the developing world, the majority of the poor and most of the hungry live in rural areas, where family and smallholder agriculture is [...] prevailing [...]» (FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.26). Through this support, «increases in food availability and incomes» (idem), can be reached. (cf. FAO/ IFAD/WFP, 2015: http://www.fao.org/3/a-i4646e.pdf, p.26)

Most of all, «inclusive growth» (idem) is crucial in developing countries, because specifically «the hungry are the poorest of the poor» (idem: 27). «[T]hey have limited or no access to physical and financial assets, little or no education, and often suffer from ill health. Poor agricultural households lack access to sufficient, high-quality land and other natural resources or to remunerative sources of income (self-employment, wage labour)». Inclusive

growth «promotes equitable access to food, assets and resources, particularly for poor people and women, so that individuals can develop their potential» (idem).

# 2.3 FLW along the integrated food supply chain

The uneven distribution of food, as already indicated by the fact of the existing hungry poor at one side, and record harvests and profits for agrifood corporations at the other side, furthermore seems to be worsened by food waste at the world's capitalist centre. In the documentary Taste the waste by Valentin Thurn, Professor Joachim von Braun from the Centre for development research in Bonn, explains that food lost from the food supply chain (FSC) causes volatile markets, and price fluctuation at a very high level. As soon as commodities initially meant for human consumption are, for example, used for biofuels and animal feed or definitely thrown away in the capitalist centre, poor people are less and less able to afford the necessary food for a healthy diet. (cf. Thurn, 2011. https://www.youtube.com/watch?v=Q9bhpcJ paQ, 59:48-1:00:22) The FAO refers to this perspective as the «integrated food supply chain approach tak[ing] into account the possibility that food loss and waste in one part of the chain are caused in another part» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.3). As well as the possibility that «[f]ood commodities traded on international markets and wasted in one part of the world could affect food availability and prices in other parts» (idem, p.2) because «[t]oday's food supply chains are increasingly globalized» (idem).

#### 2.4 Food losses

For this master's thesis, food losses should be understood as «the decrease in edible food mass throughout the part of the supply chain that specifically leads to edible food for human consumption» (FAO, 2011: http://www.fao.org/docrep/014/mb060e/mb060e00.pdf, p.2). Although, it can also be understood as food loss, if products «have incurred a reduction in quality reflected in their nutritional value, economic value or food safety» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.1). FLW in general, happen in five system boundaries along the FSC of vegetable as well as of animal commodities: agricultural production, post-harvest handling and storage, processing, distribution and consumption. (cf. FAO, 2011: http://www.fao.org/docrep/014/mb060e/mb060e00.pdf, p.2) According to FAO studies, the yearly global FLW is estimated at around 30 percent of cereals, 40 to 50 percent of root crops,

fruits and vegetables, 20 percent of oilseeds, meat and dairy products, and 35 percent of fish (cf. FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.1). Moreover, «[t]he value of food lost and wasted annually at the global level is estimated at US\$ 1 trillion» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.2)

## 2.5 Food waste

Food waste can then more specifically be understood as «[f]ood losses occurring at the end of the food chain (retail and final consumption) [...]» (FAO, 2011: http://www.fao.org/docrep/014/mb060e/mb060e00.pdf, p.2), with most of all retailers and consumers as actors. (cf. FAO, 2011: http://www.fao.org/docrep/014/mb060e/mb060e00.pdf, p.2) Although, it has also to be acknowledged in this place, that there is no general agreement on this definition. The European Court of Auditors, for example, defines it as «any product or part of a product grown, caught or processed for human consumption that could have been eaten if handled or stored differently» (ECA, 2016: 9). The ECA also perceives food waste as happening «along the entire food supply chain and therefore [argues that] action should be targeted all along the chain with potential benefits for all those involved» (idem: p.7).

Additionally, the ECA provides an interesting detail, zooming in onto the food supply chain and making concrete examples of FLW visible; starting at the production level including post-harvest handling and storage, moving on to the processing, then the retail and finally the consumer. (cf. ECA, 2016: 12). At the production level,

prominent examples can then be the «mortality of animals (on farm or during transport); Fish discards; Loss of milk due to mastitis; Crops not fully harvested or green-harvested; Product damage during harvest, storage or transport; Products sorted out due to cosmetic requirements [and] [u]npredictable changes of contract terms» (ECA, 2016: 12).

At the processing level, there can be «[p]rocess losses (peeling, washing, slicing, boiling, etc.); Wastes from plant shut-down/washings, spillage, spoilage; Product damage during storage [and] [s]uppliers having to take back products that were not sold» (ECA, 2016: 12). For the retail, problems are most of all «[d]ate expiry in depot/ in-store; Products not sold despite 'mark-downs'; Surplus stock; Product damage or quality/ weight reduction during storage [and] [p]roducts sorted out due to cosmetic requirements» (idem). Then finally concerning consumers, dominant examples are «[w]aste during storage; Surplus cooked; Food that has been 'spoilt'; Food preparation waste [and] [p]late scrapings» (idem).

## 2.6 FLW emergence according to countries

Now awareness should be raised for a difference that has been observed, between low-income and medium-and high income countries. In context of the former, the issue is more food loss, while it is more specifically food waste for the latter. Both seem inter alia to be connected to the respective countries' performance possibilities. (cf. FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.1)

«In low-income countries food loss results from wide-ranging managerial and technical limitations in harvesting techniques, storage, transportation, processing, cooling facilities, infrastructure, packaging and marketing systems. The main sectors of concern are small- and medium-scale fisheries, agricultural production and processing» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.1).

But «[s]ocial and cultural conditions- such as the different productive and social roles that men and women play at different stages of the value chain- are also often underlying causes of food loss» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.1).

On the contrary, «[t]he causes of food waste [...] relate mainly to consumer behaviour and the policies and regulations put in place to address other sectorial priorities. For example, agricultural subsidies may contribute to the production of surplus quantities of farm crops, of which at least a proportion is lost or wasted. Food safety and quality standards can be applied in ways that remove food that is still safe for human consumption from the food supply chain. At the consumer level, inadequate planning of purchases and failure to use food before its expiry date also lead to avoidable food waste» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.1)

One should however be aware of the fact, that «[f]ood waste is expected to constitute a growing problem in developing countries, given the changes that food systems in these countries are undergoing because of such factors as rapid urbanization, expansion of supermarket chains, and changes in diets and lifestyles» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.3).

#### 2.7 Additional consequences of FLW

Yet, FLW have further impacts besides the worsening of hunger. They also cause a non-productive use of land and water, with again «repercussions on hunger and poverty alleviation, nutrition, income generation and economic growth» (FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.2). (cf. FAO, 2015<sup>a</sup>: http://www.fao.org/3/a-i4068e.pdf, p.2) As well as environmental damage and «the consequent increase in greenhouse gas emissions» (ECA, 2016: 12). The entire society pays for this environmental cost, «mainly through the growing scarcity of natural resources [,] which in the long term may be translated into an increase in the price of these resources» (idem: 14).

Besides these impacts, one should of course not forget the high economic cost for every involved entity. It not only includes «the cost linked to the value of the products themselves, but also the costs linked to the production, transport and storage of wasted products, as well as their treatment costs» (ECA, 2016: 12). There are at least three entities having to pay for the economic cost: «consumers, specific food supply chain operators and charities» (idem:14) (cf. ECA, 2016: 14). Nonetheless, the operators' possibility to «include [the cost] in the final consumer price of the product» (idem), to shift it to another probably weaker food business operator (cf. ECA, 2016: 14) or to «externalise[...][it] to charities in the form of food donation» (ECA, 2016: 14), should be noted. It could make the decisions «with the aim of maximising profit» (idem: 13) easier for them to take, even if they «entail generating a certain amount of food waste» (idem).

The following chapter will more specifically treat food waste at the retail level, with the supermarket as concrete food supply chain operator because, as already mentioned earlier, it has become a central actor in the third, corporate food regime. Furthermore, «[a]s a gatekeeper to the food supply chain, the retail and wholesale sector is a crucial entity in the pursuit of minimizing food waste» (Gruber/ Holweg/ Teller, 2016: 3).

## 3. The food supply chain's retail sector and supermarkets

In her essay «Supermarkets as New Food Authorities», Jane Dixon argues that supermarkets seem to «have entered the twenty-first century as significant authority figures» (Dixon, 2007: 31) and in «The Rise of Supermarkets and Asymmetries of Economic Power», Mark Harvey confirms, that «[i]n advanced capitalist economies and beyond, a new historical phenomenon of retailers ruling the economic roost has crept up [...]» (Harvey, 2007: 51). These seem to be especially dominant in the food sector, «[a] notable example occurs with fresh foods where wholesale markets that had existed for long historical periods were swept aside by the newly emergent supermarket logistical systems, such as regional distribution centres» (idem: 52). The interlinked processes of globalisation, market liberalisation and pro-corporate regulation, made it possbile for supermarkets, to become one of «the most powerful transnational corporate forces in the world today» (Burch, 2007: 1) (cf. Burch, 2007: 5).

## 3.1 Development of the supermarket into a dominant operator

Especially considering the example of Europe, and taking into account «[p]ost-war rationing, combined with relatively low incomes and limited availability of consumer goods [...]» (Burch/ Lawrence, 2007: 104), these economically influential retailers have come a long way. From «small, family-owned and neighbourhood-oriented retailers [with the] capacity to know their consumers, their likes and dislikes, their willingness to pay and their propensity to complain» (Dixon, 2007: 34), as already described by Evans (1999), Humphery (1998) and Kingston (1994) (cf. Dixon, 2007: 34). To stores adopting a system of «modern self-service and mass retail formats» (idem) with «service [being] provided on an anonymous basis by an army of staff on rotating shifts» (idem); as purchasing power increased again with «post-war full employment and economic growth» (Burch/ Lawrence, 2007: 105). (cf. Burch/ Lawrence, 2007: 105) Recently, «virtual retailing» (Dixon, 2007: 34) became an additional service.

Through these developments, a quite heterogenous landscape of retailers arised, with «different patterns of power» (Harvey, 2007: 51), being dominant at national and/ or transnational level. (cf. Harvey, 2007: 51) The end of communism in Central and Eastern Europe and the fall of the Iron Curtain, as well as the following eastward enlargement of the EU, have brought additional heterogeneity into these developments (cf. Vorley, 2007: 243). «In the space of a decade, there has [been] a restructuring of the sector in central and eastern Europe (CEE) of the kind that took 30 years in western Europe» (Vorley, 2007: 243)

With the extending size, «the markets articulated by different retail outlets [became] quite variable: some have a relatively high focus on food[,] [while] others trade as much in other consumables, such as electrical goods, clothing, cosmetics, cleaning products, pharmaceuticals, and so on» (Harvey, 2007: 51). Nonetheless, it is an interesting fact, that «food provides the leverage» (idem: 52), as «[e]lectrical goods and clothing are added to the market for food in supermarkets, rather than food being added to the product range of electrical retailers» (idem). It is assumed, that with this variety offered, a «high level of corporate economic power» (idem: 51) is achieved by retailers in comparison to other operators. (cf. Harvey, 2007: 51) This causal connection between variety and gain in power also became possible with the economic recovery after the post-war period and the consumers' growing purchasing power, which made them express new preferences (cf. Burch/ Lawrence, 2007: 105). «Ultimately, this meant that the retail sector, which was closer to the consumer and more responsive to changing patterns of demand, displaced the manufacturing sector in determining what was produced, where, to what standard, and the

price at which it would be sold» (Burch/ Lawrence, 2007: 105). Before the recovery, manufacturers had a dominant position in most western European economies and were protected by governments (cf. Burch/ Lawrence, 2007: 104). The so-called practice of «retail price maintenance (RPM)» (idem: 104), for example, had given manufacturers a position superior to retailers, in some European countries (cf. Burch/ Lawrence, 2007: 104). It allowed manufacturers, «to set the prices at which their goods were sold by retailers» (Burch/ Lawrence, 2007: 104).

From the 1960's, supermarkets were confronted with growing competition in the retail sector, thus, the production of own labels became very popular (cf. Burch/ Lawrence, 2007: 105). Progressively, these were not anymore just low-cost alternatives to brand products, since big efforts were made to come up with «new and innovative products such as ready meals [...]» (Burch/ Lawrence, 2007: 105-106) (cf. Burch/ Lawrence, 2007: 105). The production of own labels strenghtened the supermarkets' position, as it «represents a form of vertical coordination [in the sense of integration] that provides a retailer with significant levels of control over its sources of supply, without assuming the responsibility of direct managerial authority» (Burch/ Lawrence, 2007: 108). Moreover, it provides supermarkets «with alternative sources of supply which can be used to deny established food processors shelf space» (idem) and ask for higher «'slotting fees'» instead (idem). Consequently, it was possible to extend own labels through horizontal coordination and they then also affected other products offered than food, «generat[ing] new economies of scale and/or sources of profit (Burch/ Lawrence, 2007: 108) (cf. Burch/ Lawrence, 2007: 108). But, the retailers' already mentioned quest for innovation, is «the most significant challenge [...] present[ed] to the major food manufacturers» (Burch/ Lawrence, 2007: 109), through «a vast array of new foods which have been neglected by [the latter]» (idem: 11).

# 3.2 Supermarket authorities

The retailers' new dominant position consequently made them develop into «institutional authorit[ies]» (Dixon, 2007: 31). «[This] status [was] achieved through a strategic layering of multiple, well-established, forms of authority: traditional, bureaucratic and charismatic (Dixon 2003)» (Dixon, 2007: 31). They then as well took the wheel as so called local authority (cf. Dixon, 2007: 31).

As a traditional authority, retailers ideally have a remarkable corporate history with a «trustworthy reputation» (Dixon, 2007, 32). Their physical presence with well visible stores

and buildings and their for every day life very important food assortment and services make them dominant and indispensable. (cf. Dixon, 2007, 32) «They form partnerships with third parties, which already have some form of traditional authority [...]» (Dixon, 2007, 32) and they support their customers, for example, with free food related advice (cf. Dixon, 2007, 32). Among those partners can then be governments (cf. Dixon, 2007, 32), as will be seen later in this master's thesis; the here relevant SPAR and MERKUR supermarkets working with the Austrian Ministery of sustainability and tourism.

The dimensions of their enterprise also make them a bureaucratic authority (cf. Dixon, 2007, 32), on one side they «devise and police food production standards» (Dixon, 2007, 32) but on the other side, they also «implement the regulations set by producer groups or farm associations» (idem). As a result, they become «accountable to shareholders and consumer watchdogs» (Dixon, 2007, 32). The in this work relevant supermarkets, for example, mostly set the framing rules for food saving activities and are at the same time influenced by their customers' interests, as will be seen later.

Additionally, supermarkets are charismatic authorities (cf. Dixon, 2007, 32), their public relations are developed to generate sympathy and a specific personality (cf. idem), they ware bright, colourful and loud» (Dixon, 2007, 32). They specifically also wform partnerships with other charismatic figures [...]» (idem) and wdrive innovation in product lines, store layout [and] services» (idem). During the last fifteen years, these innovations seemingly focused on instant food, health and sustainability, key aspects that will soon be described in more detail.

To complete the authority layers, the local authority consists of the «domination of the [local] physical and social landscape» (Dixon, 2007, 32). This means inter alia, that supermarkets «tailor product portfolios to local circumstances, hire local employees and provide practical support to local groups and ,good causes'» (idem). Generally, the here topical cooperation of supermarkets and food saving organisations meets these support criteria.

# 3.3 Supermarkets' power relations

It seems to be very important to understand, that in the context of the food supply chain, «[p]ower is relational» (Harvey, 2007: 53). Except from a few vertically completely integrated organisations, it is usually not affordable for businesses, to own and control all of the activities and stages of the supply chain. (cf. Cox/ Chicksand, 2007: 75) Thus, «vertical buyer and supplier relationships are created at each outsourced stage throughout the chain»

(Cox/ Chicksand, 2007: 75). It is consequently very common, that «ownership and control of the costs, opportunities and risks of what is done at each stage in the chain [...] pass from the supplier to the buyer» (idem), if not differently agreed upon with liabilities and warranties (cf. Cox/ Chicksand, 2007: 75). Remembering the retailers placement in the supply chain, as already described with the ECA report, they «look both downstream towards consumers (the end-market exchange), and upstream to a range of other economic agents, such as farmers, manufacturers, logistics companies and so on» (Harvey, 2007: 53). Downstream, the power relations of retailers are conditioned by «[p]hases of urbanisation, the concentration or geographical dispersion of populations, and most importantly cultural differences in food consumption- and the ways in which consumption is societally institutionalised [...]» (idem). (cf. Harvey, 2007: 53) Whereas upstream, power relations are, for example, influenced by the «political representation of the farming community, or the relative size and concentration of food manufacturers» (Harvey, 2007: 53). (cf. Harvey, 2007: 53)

Retailers from their starting position, can be able to «exercise [important] control over production processes» (Harvey, 2007: 53), especially for primary producers, if the latter stay «unorganised and fragmented» (idem) because, they then are more dependent on retailers for market access. (cf. Harvey, 2007: 53) But in the case of «branded manufacturers of mass global products invest[ing] large amounts of money in research and development, and in branding and advertising their products» (Harvey, 2007: 53), retailers most often stay «mere conduits» (Harvey, 2007: 53), because «[a]dvertising and branding are critical to consumer demand for those products» (idem).

Considering the specific case of the above introduced own label production, these power relations can also be observed very well. In the first place, «small manufacturers with only a small market share and no major commitment to popular brand products, or new start-up companies which established operations with the express purpose of meeting the demand for own brand product lines» (Burch/ Lawrence, 2007: 106), followed the demand. Whereas, «[c]ompanies with iconic brands and key products, such as Kellogg's and Coca-Cola, have continued to resist requests to produce own brand versions of their premium products (Burch and Goss 1999) [...]» (Burch/ Lawrence, 2007: 106). Brand manufacturers from the midfield gave in to the demand for supply for own labels, as «they [usually] believed that this would only marginally affect their sales of their higher quality premium product, and would have little impact on overall profitability if they were supplying the own brand product as well» (idem). If branded manufacturers refuse to supply supermarkets' own labels, often «a high

degree of conflict [arises], which may only be resolved by a retailer sourcing like products from overseas suppliers.» (idem: 107) (cf. Burch/ Lawrence, 2007: 106)

Attention also has to be paid to another link, in those cases, in which retailers have influence on the production process on one side, they have influence on «choice and prices for consumers» (idem) on the other side. (cf. Harvey, 2007: 53) In this place, the well known figure of the sovereign consumer can be qualified, as his or her «relative economic power in relation to retailers is clearly conditioned by the prevalence of high levels of retail concentration» (Harvey, 2007: 54). Thus, «[t]he choice not to purchase a given product, or not to patronise a particular retailer, weighs little as an individual gesture [...]» (idem).

Completely other circumstances are faced, if societal trends or fears influence consumers, society as an entity is able to influence the production and retail level. Harvey, for example, refers to «the numerous crises of trust in food that have beset Europe [...]» (idem) (cf. Harvey, 2007: 54). Burch and Lawrence describe contemporary ways of working, leading to a need of adapted foods. «[...] [T]hose employed in offices (where people consume 'deskfast' or eat 'al desko'), and [...] workers in flexible production systems who find it difficult to observe traditional meal breaks ('flexi-eating')» (Burch/ Lawrence, 2007: 110) raise the demand for «snack foods, breakfast bars, 'liquid meals' and fast food line which can be eaten one-handed [...]» (idem). The so-called «'dashboard dining'» (idem) is also a dominant variation of the «'food on the go'» (idem) trend, «as vehicles [have] become a primary site of food consumption» (idem).

In retrospect one can see that, «[a]t a time when such developments were taking place, the established brand manufacturers largely continued to market traditional lines, with minimal innovation» (idem). Like this, «the new and reconfigured foods- sandwiches, home meal replacements and convenience foods of all kinds- are usually produced by specialist companies which are largely committed to the production of supermarket own brands (see Harvey at al, 2012 [...])» (idem: 112). As a consequence, food manufacturers started focusing «on their core operations in order to enhance efficiencies in production and distribution» (Burch/ Lawrence, 2007: 114). Depending on their scale, they also «restructured th[r]ough mergers and acquisitions in the belief that an increasing scale of operations [would] enhance their increased market power and provide greater capacity to deal with the retail sector [...]» (idem). To reach a more efficient and a cheaper production, they additionally expanded it overseas in less developed countries (cf. Burch/ Lawrence, 2007: 114). Concerning their products, they have begun to develop new ones (cf. Burch/ Lawrence, 2007: 115) and to «innovate in areas which have not yet been 'occupied' by the supermarkets own brand lines»

(Burch/ Lawrence, 2007: 115). Among these are «diet products, nutriceuticals and functional foods. In some instances, they have 'married' both of these elements and introduced healthier variants of existing brand products» (idem).

Nonetheless, «[s]upermarket own brands have emerged as a significant part of the global agri-food system, and the sales of such products continue to expand at a faster rate than the branded products of the established food companies (Burch and Lawrence 2005). The reasons for this are numerous, but there is no doubt supermarket own brands offer higher profits in a sector which is highly competitive, and which operates on very low margins» (Burch/ Lawrence, 2007: 108).

In general, it seems as if food manufacturers and supermarkets would constantly duel each other in their need of one another, but, a third kind of players have expanded their activity as well: food brokers. (cf. Burch/ Lawrence, 2007: 107) They «stand between the manufacturing and the retail sectors» (Burch/ Lawrence, 2007: 107), acting on behald of the former sector «representing a food company in seeking to place its products on a retailer's shelve» (idem) and at the same time, acting on behalf of the latter sector «in supplying an own brand line of products which it sources globally [...]» (idem). (cf. Burch/ Lawrence, 2007: 107)

# 3.4 Food waste happening at the retailers' sector

As already detected, food gives the leverage and thus, «[w]holesalers and retailers exert major influences on the amount of food waste generated, due to [a] high concentration in grocery distribution markets in which [they] have developed significant buying power (Burt and Sparks 2003; Hingley 2005)» (Gruber/ Holweg/ Teller, 2016: 3). Even if their food waste amount is only «a minor fraction of all the food discarded along the supply chain» (Cicatiello at al., 2016: 99), it is still considerably high. (cf. Cicatiello at al., 2016: 99) And retailers are in general able, to exert «significant influence on food waste generated throughout the chain» (Brancoli et al., 2017: 39). As already discerned in the description of the competition between the manufacturing and the retail sector, «[f]ood distributors [have a possibility to] decide which food products, and in what quantity and quality, are offered and promoted to consumers» (idem). In this way, they «influence household purchasing and consumption decisions by controlling the point of sales and stimulating specific behaviors through their marketing measures (Mena et al. 2014)» (Gruber/ Holweg/ Teller, 2016: 3). The latter can become a problem, offering «volume-forcing promotions such as 'two-for-one'» (idem: 4) persuading consumers to buy more than they actually need, and indirectly causing food waste at household level. But, through strict quality standards, they also aggravate the food waste amount on the primary production level, as «[f]ood products that are classified as lower quality can yield lower profits, and it is therefore often not financially viable to harvest the product, even though it could be sold in supermarkets» (Brancoli et al., 2017: 39).

Some reasons for food waste at the store level itself could probably be called systemic. «[...] [T]he store is a key point of relevance because it constitutes the physical place where food is sold, and thus, where food waste occurs. To this end, retail and wholesale stores are the institutional actors closest to disposal and recycling» (Gruber/ Holweg/ Teller, 2016: 3). Awareness also has to be raised for the fact, that «[...] the store is the very place where the interconnectedness of the FSC is physically manifested and the various actors in the FSC (i.e. suppliers, consumers, and legal entities such as food administration) intersect» (idem: 4), leading to «high transaction volumes» (idem: 3) and entailing a «significantly higher and, concurrently, more concentrated [food waste] than that among individual households» (idem).

Then, there are also organisational deficencies causing food waste in retail, like «inefficient supply chain processes in terms of transportation, stock keeping, and handling by store personnel» (Gruber/ Holweg/ Teller, 2016: 4). Not to forget, buying departements tend to order volume that can't be allocated to consumers anymore, and consequently causes food waste (cf. Gruber/ Holweg/ Teller, 2016: 15). For example, when «packaging units (i.e units stores order from warehouses) [...] contain too many products that smaller stores cannot usually sell entirely» (Gruber/ Holweg/ Teller, 2016: 15). But «[f]ood waste is often considered an indication of an extensive product range, and thus increased sales [...]» (Gruber/ Holweg/ Teller, 2016: 5) and even though, retail organizations try to minimize it, they «seem indifferent to its occurrence as part of normal store operations [...]» (idem) (cf. Gruber/ Holweg/ Teller, 2016: 5). Currently, they put a «strong emphasis on efficiency, predictability, calculability, and control» (Gruber/ Holweg/ Teller, 2016: 5), as well as on a high degree of rationalisation, leading to McDonaldization (cf. Gruber/ Holweg/ Teller, 2016: 5). In this context, it additionally has to be mentioned, that "[i]t is less costly to throw away food than to invest in staff (training and numbers) to tackle the food waste issue'» (Gruber/ Holweg/ Teller, 2016: 15).

«[T]he rise in retailer power, in varying ways, reorganised both the nature of shopping (end-market exchanges), and the logistics of food distribution» (Harvey, 2007: 52). There is demand for daily consumption of fresh as well as of manufactured foods with inherent «distinctive constraints of time and space» (Harvey, 2007: 52) (cf. Harvey, 2007: 52). «Consumers are always demanding higher service levels and better purchase prices» (Hübner/ Kuhn/ Sternbeck, 2013: 513) and at the same time, retailers try to always enbroaden their product variety, make more profitable sales prices possible and have lower costs (cf. Hübner/

Kuhn/ Sternbeck, 2013: 513). The, in this context, «critical product categories most affected by food waste [...] includ[e] fruits and vegetables, bread and bakery products, dairy products and meat (Lebersorger and Schneider 2014; Mena et al. 2014)» (Gruber/ Holweg/ Teller, 2016: 4).

# 3.5 Food waste in Austrian supermarkets

Lebersorger and Schneider carried out a study with 609 Austrian supermarkets in and around Vienna, to investigate about food waste at the retail level in more detail. Their results can be particularly interesting for this master's thesis, as the relative interviews for the second part take as well place in Vienna. Lebersorger and Schneider learned that from the supermarkets' perspective, food loss can

be understood as «[...]the total quantity of articles which were neither sold nor returned [to the producers], i.e. the sum of depreciation (due to different reasons such as apparent flaws, damaged packaging, expiration of best before or sell-by date. . .), breakage of goods and transfer to social services such as food banks or food distribution programs» (p.1912).

They found out, that «apparent flaws of the product were the most frequent reason» (Lebersorger/ Schneider, 2014: 1916) for discard, «which was observed for two thirds of all products» (idem). Then, «[t]he best before or sell-by date had been exceeded or reached by one third of all articles» (idem) and consequentally, «[a]rticles usually had been removed from sales the day after the respective date had been exceeded» (idem). It has to be noted, that «[n]one of the analysed articles had been labelled with a use-by date» (idem). Two other important reasons for discard were damaged packaging and breakage, concerning the latter, both packaging and product had been damaged. (cf. Lebersorger/ Schneider, 2014: 1916). The mentioned flaws mainly affected fruit and vegetables as they changed colour, had dents and were overripe, mouldy, withered or moist (cf. Lebersorger/ Schneider, 2014: 1916-1917).

It also has been observed, that «[f]ood loss rates exhibit seasonal variations» (Lebersorger/ Schneider, 2014: 1914), with a peak of bread and pastry in December, around Christmas, then fruit and vegetables and dairy products in summer, between July and September. The lowest food loss rates happening between January and March. (cf. Lebersorger/ Schneider, 2014: 1914). Additionally, «significant differences by geographic region and urban/ rural environment» (Lebersorger/ Schneider, 2014: 1916) become apparent among food loss rates. At least around Vienna, «[r]etail outlets in a rural environment have significantly higher food loss rates of dairy products and bread & pastry, but lower rates of returned bread than retail outlets in an urban environment» (idem). They point out, that

enlarged research still has to be carried out, including for example, meat, beverages, candies and the for the supermarkets nowadays so important instant or ready meals. (cf. Lebersorger/Schneider, 2014: 1919)

As Lebersorger and Schneider also discovered that, «[f]ood loss rates show a large variation between individual retail outlets, even within the same market type» (Lebersorger/Schneider, 2014: 1918), it seems as if a method to generalize given factors was needed. Thus, «[l]inear regression models were calculated in order to investigate the combined effect of the independent variables sales area, sales and number of purchases on the food loss rates of the individual assortments and in total» (idem: 1915). Resulting in the conclusion, that «[f]ood loss rates are declining with increasing sales area, increasing number of purchases per year and increasing sales» (idem).

Lebersorger and Schneider note, that the European Commission (2010) and Stendmark ar al. (2011) observed, that the combination of the «shelf life span» (idem), «the sensitivity of products themselves» (idem), the, to the store very important «consumers' expectations of product range and availability» (idem: 14), as well as the «legal aspects in the realm of food labeling [...], for example, 'best-before' or 'sell-by' dates» (idem: 4) bring about a situation making it very hard to avoid food waste. Gruber at al. refer to Kotzab and Teller (2005) when they explain that the from this situation resulting «pursuit of permanent on-shelf product availability [...] causes overstocking and the risk of disposal, particularly of perishable products» (Gruber/ Holweg/ Teller, 2016: 4). Retailers, in general, have a problem with getting «the right goods to the right places at the right time» (Hübner/ Kuhn/ Sternbeck, 2013: 513), as «[...] the decoupling point that divides planning tasks into forecast driven and order driven is typically located at the store, at the very end of the supply chain. Retailers have to anticipate consumer demand down the SC until the 'moment of truth'» (idem: 515).

Nevertheless, there are organisations cooperating with supermarkets, to save products that are on their way to be wasted because it was not possible to sell them. These organisations could be seen as a part of the food movements that are oppositional to the third, corporate food regime, mentioned earlier through Giménez and Shattuck. (cf. Giménez/Shattuck, 2011: 111)

# 4. The third corporate food regime through the lense of Robert Cox' Neogramscianism

Bearing in mind Robert Cox' interpretation of Antonio Gramsci's Marxist theory, this third, corporate food regime and the concept of the supermarket would be part of the international

hegemonic historic bloc adhering to finance capitalism, neoliberalism and the mode of mass production. As according to Cox' perspective of Neogramscianism, on the international level, the concept of hegemony should be understood «[...] not merely [as] an order among states. It is an order within a world economy with a dominant mode of production which penetrates into all countries and links into other subordinate modes of production» (Cox, 1983: 61-62).

# 4.1 Antonio Gramsci's concepts of hegemony and the historic bloc

On one side, Antonio Gramsci derived his concept of hegemony from an idea of the Italian Third International, saying that «the workers exercised hegemony over the allied classes and dictatorship over enemy classes» (Cox, 1983: 50). The role of the working class was then to «lead[...] an alliance of workers, peasants and perhaps some other groups potentially supportive of revolutionary change» (idem: 50-51) (cf. Cox, 1983: 50-51). Gramsci innovatively applied this idea to the bourgeoisie (cf. idem: 51). On the other side, he was inspired by Machiavelli's «image of power as a centaur: half man, half beast, a necessary combination of consent and coercion» (Cox, 1983: 52). And he took over Machiavelli's idea that hegemony reigns «[t]o the extent that the consensual aspect of power is in the forefront [...]. Coercion is always latent but is only applied in marginal, deviant cases» (idem) (cf. Cox, 1983: 52). Decisive for Gramci's use of the concept of hegemony seems also to be, that «[t]he Machiavellian connection frees the concept of power (and of hegemony as one form of power) from a tie to historically specific social classes and gives it a wider applicability to relations of dominance and subordination, including [...] relations of world order» (Cox, 1983: 52). According to Gramsci hegemony can arise, «passing from the specific interests of a group or class to the building of institutions and elaboration of ideologies» (idem 57-58) and «[i]f they reflect hegemony, these institutions and ideologies will be universal in form, i.e. they will not appear as those of a particular class, and will give some satisfaction to the subordinate groups while not undermining the leadership or vital interests of the hegemonic class» (idem). A necessary condition for the upcoming of a hegemony also, seems to be the «dialectical concept» (idem: 56) of a historic bloc.

Gramsci defined the historic bloc as «a solid structure» (idem: 56) constituted by «state and society together» (idem) (cf. Cox, 1983: 56). The latter having a «hegemonic social class» (idem) and the former, «[w]here the hegemonic class is the dominant class in a country or social formation [...] maintain[ing] cohesion and identity within the bloc through the propagation of a common culture» (idem: 56-57). The state, in this context, is Gramsci's

enlarged state, including not only «the administrative, executive and coercive apparatus of government» (idem: 51) but also «the underpinnings of the political structure in civil society» (idem). Intellectuals also seem to be important for this common culture, «[t]hey perform the function of developing and sustaining the mental images, technologies and organisations which bind together the members of a class and of an historic bloc into common identity» (idem: 57). «The [enlarged] state remained for [Gramsci] the basic entity in international relations and the place where social conflicts take place- the place also, therefore, where hegemonies of social classes can be built» (idem: 58).

## 4.2 Robert Cox' Neogramscianism

Consequently, Robert Cox describes a world hegemony in its beginnings as «[...] an outward expansion of the internal (national) hegemony established by a dominant social class» (Cox, 1983: 61). Progressively, «[t]he economic and social institutions, the culture, the technology associated with this national hegemony become patterns for emulation abroad» (idem). This also means, that «[t]he hegemonic concept of world order is founded not only upon the regulation of inter-state conflict but also upon a globally-conceived civil society [...]» (idem). The completely established world hegemony is then «expressed in universal norms, institutions and mechanisms which lay down general rules of behaviour for states and for those forces of civil society that act across national boundaries- rules which support the dominant mode of production» (idem: 62). Generating such rules and reinforcing respective norms seems to be the stage of power of «Northern-dominated international finance and development institutions» (Giménez/ Shattuck, 2011: 119) like, for example, the World Trade Organisation, the International Monetary Fund and the World Bank. (cf. Giménez/ Shattuck, 2011: 119)

Such «[i]nternational institutions embody rules which facilitate the expansion of the dominant economic and social forces but which at the same time permit adjustments to be made by subordinated interests with a minimum of pain. The rules governing world monetary and trade relations are particularly significant. They are framed primarily to promote economic expansion. At the same time they allow for exceptions and derogations to take care of problem situations. They can be revised in the light of changed circumstances» (Cox, 1983: 62).

One has to be aware of the fact, that «[i]nternational institutions and rules are generally initiated by the state which establishes the hegemony. At the very least they must have that state's support» (Cox, 1983: 62-63). In general, «[w]orld hegemony is describable as a social structure, an economic structure, and a political structure; and it cannot be simply one of these things but must be all three» (Cox, 1983: 62).

So far the happenings at the core being described, «[...] an expansive hegemony impinges on the more peripheral countries as a passive revolution» (Cox, 1983: 61). Gramsci defined this concept as «a counterpart to the concept of hegemony in that it describes the condition of a non-hegemonic society [...]» (idem: 55). Cox states that, «[t]oday this notion of passive revolution [...] is particularly apposite to industrialising Third World countries» (idem). In those cases, the hegemonic ideas are not taken over by «an indigenous social group which is actively engaged in building a new economic base with a new structure of social relations» (idem: 59), but by «an intellectual stratum which picks up ideas originating from a prior foreign economic and social revolution» (idem), that happened earlier in the core of the respective hegemony.

Gramsci distinguished two forms of passive revolution, caesarism and transformismo (cf. Cox, 1983: 54-55). Concerning the first one, «a strong man intervenes to resolve the stalemate between equal and opposed social forces» (Cox, 1983: 54), in the case of the second one, the established hegemonal system «worked to co-opt potential leaders of subaltern social groups» (idem: 55). Thus, «[b]y extension transformismo can serve as a strategy of assimilating and domesticating potentially dangerous ideas by adjusting them to the policies of the dominant coalition and can thereby obstruct the formation of class-based organised opposition to established social and political power» (idem)

# 4.3 Transformismo at the core of the neoliberal historic bloc

In fact, one can probably say, that the so-called transformismo strategy can also be encountered at the core of the hegemony. Eric Holt Giménez and Annie Shattuck distinguish «two main trends within the corporate food regime[,] [the] Neoliberal and the Reformist» (Giménez/ Shattuck, 2011: 115). The former is the hegemonic one, while the latter is subordinate and partly «managed by weaker offices in the same institutions» (idem). Some of the latter's main managers are the World Bank Group's public finance arm, the UN and the FAO (cf. Giménez/ Shattuck, 2011: 121). Their «'mission' of Reform is to mitigate the social and environmental externalities of the corporate food regime [...]» (Giménez/ Shattuck, 2011: 115). In general, «[r]eformists call for mild reforms to the regime, for example through an increase of social safety nets, consumer-driven niche markets, and voluntary, corporate responsibility mechanisms» (idem).

The United Nations can, for example, be seen as a reformist organisation working with the transformismo strategy, as their Economic and Social Council (ECOSOC) consults with NGO's from all over the world about current issues arising from the hegemonic neoliberal system. (cf. NGO Branch: http://csonet.org/index.php?menu=14) The UN specialized agency

FAO, particularly relevant for this master's thesis, seems to be an additional example for a reformist organisation working with the transformismo strategy, as it regularly establishes Society with Civil Organisations dialogue (CSO's). (cf. FAO: http://www.fao.org/partnerships/civil-society/en/) Indeed, Robert Cox remarks that the international organisation is «[o]ne mechanism through which the universal norms of a world hegemony are expressed [...]» (Cox, 1983: 62). The international organisation's hegemonic role inter alia derives from «[...] embod[ied] rules which facilitate the expansion of hegemonic world orders» (idem), the international organisation's features which «are themselves the product of the hegemonic world order» (idem) (cf. Cox, 1983: 62) and its ideological legitimation of the norms of the world order (cf. Cox, 1983: 62). Furthermore, the international organisation is in general able to «[...] co-opt the elites from peripheral countries and [to] absorb counter-hegemonic ideas» (Cox, 1983: 62).

Giménez and Shattuck conclude, that the double movement of the neoliberal and the reformist trend within the corporate food regime «results in more of a fine-tuning of the neoliberal project rather than a substantive change of direction» (Giménez/ Shattuck, 2011: 124). As, for instance, «[r]eformists employ a cautious food security discourse and seek to mainstream less socially and environmentally damaging alternatives into existing market structure» (Giménez/ Shattuck, 2011: 121).

Besides the neoliberal and reformist trends within the corporate food regime, Giménez and Shattuck introduce a progressive and a radical trend (cf. Giménez/ Shattuck, 2011: 124, 128) accompanying the regime. The former «is possibly the largest and fastest growing grassroots expression of the food movement» (Giménez/ Shattuck, 2011: 124), «[...] based primarily in the middle and working classes of the global North, and has particular appeal to youth» (idem). Working with a «food justice discourse grounded in an empowerment orientation in which the poor, oppressed and underserved assert their rights through the power of self-respect and community organization» (idem). The latter is «sympathetic to much of the grassroots movements in the Progressive trend [but] advocates for a radical transformation of society [...]» (idem: 128); it «[...] seeks deep, structural changes to food and agriculture» (idem). The radical trend most of all focuses about the concept of food sovereignty, which has been launched at the 1996 World Food Summit by Via Campesina (cf. Giménez/ Shattuck, 2011: 128). It's supporters are, for example, «farmers' organisations, fisherfolk, pastoralists, [...] civil society organisations, as well as NGO's [...]» (Giménez/ Shattuck, 2011: 128).

While NGO's adhering to the progressive trend, «denounce the ways people of color and underserved communities in rural and urban areas are abused by racism and classism within capitalist food systems[,] [...] insist on social rather than individual (consumer) responses to food regime failings [...] [and] focus on creating new business models for underserved communities» (idem: 125).

Organisations adhering to the radical trend, «advocate dismantling corporate agri-foods monopolies, parity, redistributive land reform, protection from dumping and overproduction, and community rights to water and seed» (cf. Giménez/ Shattuck, 2011: 129).

Describing these two trends with Cox' Neogramscianism, the progressives' actions can probably be seen as a kind of reversed transformismo, as they organise themselves in ways making it possible to impose changes within the corporate regime structure, but mostly without calling out for a direct revolution, they still seem to adapt themselves to the system. Whereas, adherents to the radical trend, can probably be called counter-hegemonic.

With a strong presence in underserved communities in the global North and a focus on activity in local-national arenas (cf. Giménez/ Shattuck, 2011: 125), the progressive trend is particularly interesting in this place. The Viennese food saving NGOs central to this work and the supermarkets that agreed to work with them, can be seen as actors of this progressive trend and more precisely as actors of the food saving movement in Vienna, that shall be described in the following chapter.

## 5. The food saving movement as a new social movement

## 5.1 Definition

The food saving movement can, in general, be understood as a constituent of the «[...] dynamic global food movement [that] has risen up to confront the corporate assault on [...] food» (Holt-Giménez, 2011: 1). The in this context taken actions are very diverse, for example, «[...] local food justice activists have taken back pieces of their food systems through local gardening, organic farming, community-supported agriculture, farmers' markets, and locally owned processing and retail operations» (idem). Then, «[f]ood sovereignty advocates have organized for land reform, the end of destructive global-trade agreements, and support for family farmers, women, and peasants» (idem). And protests questioning «the expansion of genetically modified organisms (GMOs), agrofuels, "land grabs", and the oligopolistic control of [...] food» (idem) as well as research for «respective viable alternatives» (idem) are being organized (cf. Holt-Giménez, 2011: 1). The global food movement arised from «strong commitments to food justice, food democracy, and food sovereignty on the part of thousands of farmers' unions, consumer groups, NGOs, and faith-based and community organizations across the urban-rural and North-South divides of our

planet» (Holt-Giménez, 2011: 2). Thus, Eric Holt-Giménez also calls it a «'movement of movements'» (idem).

Further on, the food saving movement can, like the global food movement, be defined as a new social movement. Focus has been layed on new social movements since the end of the 1960s, starting with the student movement, the ecological movement, peace movement and the feminist movement (cf. Stickler, 2005: 100). The food movement in general, and consequently the food saving movement, could probably be seen as a part of the ecological movement, or as a closely related movement to the latter. Research about new social movements in social sciences defines them as informal interaction networks, whose actors share the same convictions and to a certain degree, show solidarity. These actors furthermore share a critical perspective about the status quo and most of all mobilize a considerable number of people to stand up for change, through the movement. (cf. Stickler, 2005: 99) The decision making processes in new social movements are discentralized and organisations and all other actors constituting them, look to be very autonomous and sharing only a loose connection. Apparently, all of them try to have some influence on the non-fixed program and strategy. (cf. Stickler, 2005: 97)

The German political scientist Joachim Raschke wrote a definition for new social movements, that became very popular in the German speaking area and thus, is relevant for this work, as its case study takes place in Vienna. Raschke understands new social movements as postindustrial movements (cf. Stickler, 2005: 100) and defines a social movement as a collective and mobilizing actor, either seeking social change or trying to prevent or revoke it. (cf. Stickler, 2005: 94-95; Raschke, 1991: 32f) The predominant section in European research about new social movements, most of all sees structural societal tensions as a trigger for making the latter arise, as soon as those tensions are perceived as a problem. (cf. Stickler, 2005: 100) Following Raschke, the respective roles in the movement are usually not defined precisely, however, continuity seems to be preserved through a high symbolic integration (cf. Stickler, 2005: 94; Raschke, 1991: 32f), even if very often there's no integrate ideology (cf. Stickler, 2005: 100). Stickler apparently refers to this structural openness by, for example, describing a new social movement as an informal network with loose connections; as has already been mentionend earlier. It is also important to note, that the already mentionend critical perspective about the status quo, leads towards the work with protest actions in a wide range of ways. (cf. Stickler, 2005: 99)

Furthermore, Raschke accredited the, in the area existing general agreement, that the different organisations constituting the movement, don't define it. The movement as a whole

always has more impact than its constituents. (cf. idem, 2005: 97, Raschke, 1991: 32) However, these more centrally organised constituents assure the continuance of the movement, as they are the only concrete structure. (cf. Stickler, 2005: 97) Most of them functioning as NGOs, also working and negotiating with states and governments, whereas new social movements as such seem to keep their distances towards the latter (cf. Stickler, 2005: 134; Demirovic 1997: 272). How NGOs can be perceived in the current context, shall be clarified straight ahead.

#### 5.2 NGOs

Social sciences predominantly define two types of NGOs: technical humanitarian and political ones. While the former mostly provide services for those in need, the latter try to influence the political system and political decision making through public relations, campaigns and lobbying. (cf. Stickler, 2005: 25) The Viennese NGO *Lebensmittelrettung Österreich* can be defined as being one of the former group, as its activity is exclusively focused around saving food and redistributing it to people in need. Whereas the Viennese group of the foodsharing NGO seems to be more of a political one, as its individual members have the responsibility for the food they saved and will decide how to use it. They don't necessarily give it to people in need. They additionally decide on their own, how active they are, and thus, more or less adapt their general lifestyle to the activity of saving food and promoting the latter.

In his book about NGOs, social movements and global governance, Armin Stickler inter alia refers to Khagram, Riker und Sikkink's (2002) definition, that NGOs are «'private, voluntary, nonprofit groups whose primary aim is to influence publicly some form of social change'» (Stickler, 2005: 32). He also quotes Take's (2002) central six reference points, that seem to be relevant to describe NGOs central to this paper: they work independently from state and government, they are non-profit, they work for public interest and adhere to universal principles as well as to charitable benefit, they have a political objective and mainly survive by donation (cf. Stickler, 2005: 32).

Contrary to other political entities, such as political parties, unions and self-help groups, to only name a few, NGOs don't necessarily work with a membership system, they are from scratch available for all those in need and take on an advocatory role for the latter (cf. Stickler, 2005: 32-33). Other characteristics of NGOs seem to be their professionalism, they are usually conceived as long term projects with qualified and payed staff. This state of

organisation makes them stand out from other forms of civil activity such as protest movements and social movements. And their legalism, bringing about a generally legal and non violent behaviour. (cf. Stickler, 2005: 33-34) This behaviour also depends on their strategy, according to Take (2002), some prefer to work with confrontation, others prefer to work with cooperation; most of the time, they use a mix of both strategies. Confrontation would then be used, to make their ideal goal, their optimum more prominent, and introduce it as a reachable alternative. Whereas cooperation would be used to find an acceptable consens for every involved party, for example, by lobbying. (cf. Stickler, 2005: 81) Kriesi and Guigni (1996) also describe the applied mix of both strategies as interacting episodes of confrontation and cooperation, the former being used by NGOs to potentially enter into negotiations and the latter to keep those negotiations alive. (cf. Stickler, 2005: 82)

Then, a difference can be perceived between value and success orientated NGOs. Value orientated ones most of all aim at imposing their perspective as the right one to be pursued, thus, their willingness to find compromises is limited. While success orientated ones, most of all aim at accomplishing concrete objectives, even if the latter have to be slightly modified, to make them viable. This difference between a more or less realist and a rather fundamentalist perspective would show itself quite strongly among ecologically interested NGOs. (cf. Stickler, 2005: 82) Elkington (1997) also sees them as integrating and polarizing NGOs. While the first in general seak win-win situations for all negotiators, the second utter resistance against every actor adhering to globalisation. (cf. Stickler, 2005: 82-83) Both NGOs specifically central to this work, Lebensmittelrettung Österreich and foodsharing, seem to be more integrating.

Overall, NGOs seem to focus especially on movement subjects such as ecology, human rights, social equality, gender, peace and development. (cf. Stickler, 2005: 35) Stickler also refers to the fact, that NGOs can be seen as professional part of social movements (cf. Stickler, 2005: 91; Massarat, 1995: 38). Whereas, social movements could be understood as being constituted by "hundreds of groups and organisations— many of them short-lived, spatially scattered, and lacking direct communication, a single organisation and a common leadership [...]» (Stickler, 2005: 97; Obershall 1980: 45f).

Even if the connection between new social movements and NGOs is a popular concept, other actors who also seem to be relevant for new social movements and for the food saving movement in Vienna more precisely, should be introduced henceforth.

# 5.3 Individual citizens

One can probably expect, that in democracies all over the world «[c]itizens [...] seek ways to solve their economic, social and political grievances. They appeal to governments on all levels of politics, engage with civic associations, and invent new participative venues to express and aid their political concerns» (Stolle/ Micheletti, 2013: 1). It has been observed, that «[t]he combination of declining trust in governmental institutions and rise in demand for solutions to complex problems puts a strain on citizens, politics, parliaments, and governments in industrialized and stable democracies» (Stolle/ Micheletti, 2013: 1). It becomes apparent, that new solutions are needed, as «[t]hese developments challenge the conventional framework and mechanisms for dealing with political, social and economic problems» (idem). A possible method to deal with this challenge is, to put «greater pressure on citizens to take daily responsibility in their public and private engagements» (idem: 2). In the context of the food movement and the food saving movement more specifically, the concept of political consumerism, described by Stolle and Micheletti in Political consumerism. Global responsibility in action (2013), seems to be interesting. «[P]olitical consumerism is not only about political responsibility-taking for the common good» (idem), it is also about «how citizens take responsibility for self-regarding issues» (idem), and the central role personal choice thus gets as a mechanism in politics (cf. Stolle/ Micheletti, 2013: 2). Political responsibility shall consequently be understood as answerability for politically connoted subjects (cf. Stolle/ Micheletti, 2013: 2).

One has to acknowledge, that «[c]hoice has, in sum, become an important feature in a variety of transactions and is employed as an organizing and legitimacy-seeking tool in both the private and public sector» (Stolle/ Micheletti, 2013: 20). Citizens are confronted with «multitudes of alternative options for shopping for clothes, food, energy provision, schools for children, health care, and so on» (idem), on a daily basis. This confrontation permanently «require[s] individual citizens to make evaluations and decisions on price, taste, size, brand, quality, and political and lifestyle orientation. Thus, current problem-solving evokes the figure of the "citizen-consumers" as an organizing force in politics» (idem). Stolle and Micheletti also refer to observations proclaiming, that «shopping with a conscience can change or better the world» (idem) (cf. Stolle/ Micheletti 2013: 20, Clark and Unterberger 2007, Jones/ Haenfler/ and Johnson 2007). Additionally, one can also interpret the decision to save and redistribute some food instead of buying everything, as a political choice of the so-called citizen-consumers adhering to the food saving movement. This choice can of course

not be realised without the consent and cooperation of corporations like supermarkets. On this level, engagement of «individual citizens in their role as shoppers» (Stolle/ Micheletti, 2013: 13) becomes central. It is believed, that they «can take more societal responsibility and pressure corporations to do likewise» (idem).

# 5.4 Corporations

From the 1990s and early 2000s, «corporations [have become] a central concern in discussions on new frameworks of political responsibility and an important target of political activism and political consumerism» (Stolle/ Micheletti, 2013: 15). (cf. Stolle/ Micheletti, 2013: 15) Even if, referring to Dollar and Kraay (2002, 2004) (cf. Stolle/Micheletti, 2013: 14), «pro-growth policies associated with free trade [...] have had positive effect on the war on world poverty» (Stolle/ Micheletti, 2013: 14) and considering Kusago and Tzannantos (1998) and Kinunda-Rutashobya (2003) (cf. Stolle/ Micheletti, 2013: 14-15), Export Processing Zones «have, at least initially, generally proved to be an efficient and productive way of absorbing surplus labor for countries in early stages of industrialization» (Stolle/ Micheletti, 2013: 14), it has been argued, that «corporate engagement in the free-trade market system has not done enough to end world poverty, natural-resource exploitation, and the subjugation of people globally» (Stolle/ Micheletti, 2013: 15). Additionally, «large-scale processes of globalization, modernization and individualization» (idem: 2) favorable to extended corporate activity, led to so-called "governance gaps" (idem: 10, UN General Assembly 2008). This means, that «the traditional framework of political responsibility» (idem: 3) isn't able anymore, to solve problems as such, or to solve them in due time (cf. Stolle/ Micheletti, 2013: 3, 8). This is the case, as soon as, government doesn't have «legal jurisdiction over the source of the problem» (Stolle/ Micheletti, 2013: 3), then if actors and institutions causing the problem can't be identified and if respective actors and institutions can't be made accountable by government. (cf. Stolle/ Micheletti, 2013: 3) Consequently, «new and emerging responsibility frameworks» (Stolle/ Micheletti, 2013: 19) work with «a looser and more voluntary involvement on the part of a large variety of different actors» (idem); among these actors can then also be corporations and their consumers. (cf. Stolle/ Micheletti, 2013: 19)

Through «transnational activist networks and through political activists with global celebrity status and popular appeal» (Stolle/ Micheletti, 2013: 16), the debate about corporate responsibility keeps being an actuality (cf. Stolle/ Micheletti, 2013: 16), and it seems as if corporations, like two of the supermarkets central to this master's thesis, had to adapt to it. By

doing so, they've apparently been able to protect their corporate branding, crucial to a successful corporate development. (cf. Stolle/ Micheletti, 2013: 17) «[A]ctivists reason that corporations will concede to changes in order to protect their brand investments» (Stolle/ Micheletti, 2013: 17). The supermarkets that will be described in more detail in the next chapter, thus have incorporated social and ecological subjects into their corporate branding and in this way seem to accept their «corporate social responsibility» (Stolle/ Micheletti, 2013: 19). One of these subjects is the reduction of waste, thus, they can be seen as a part of the food saving movement. The third supermarket company that can be seen as being active in the food saving movement, belongs to a organic whole saler and thus only sells organic products. Since it's foundation, it's entire business only centres on sustainable production and saving food clearly is one part of this project.

Moreover, a double movement can be discerned between consumers and corporations. As already mentioned, citizens should be able to influence corporations, for example supermarkets, through individualized responsability taking in their role as shoppers. This dynamic could be seen as oppositional to the earlier described customers' attitude of always expecting new and fresh products, making supermarkets dependent on vast commodity ranges. At the same time, corporations on their side, should be able to foster a choice architecture, making consumers choose a specific lifestyle, through their corporate branding.

Even though or probably because, so-called «'governance gaps'» (idem: 10, UN General Assembly 2008) became apparent, governments had to develop alternative methods to govern with a variety of partners. It can be argued, that alternating their practices, also led them become actors in new social movements.

# 5.5 Green governance

Linda Soneryd and Ylva Uggla refer to Rose (1999), explaining that «forms of governing and governance were previously related more strongly to obligations, duties, solidarity, and citizenship [...]» (Soneryd/ Uggla, 2015: 917) whereas nowadays, «they are [...] increasingly related to consumption, responsible choices, and lifestyle» (idem). Policy measures are being established to foster these responsible choices and the respective lifestyle by providing necessary information and guidance (cf. Soneryd/ Uggla, 2015: 914). In context of the, in this place crucial, environmental governance such measures can, for example, take the forms of « [...] campaigns, news media reports, eco-labelled products, and tools for calculating personal carbon emissions» (Soneryd/ Uggla, 2015: 917, Hursh and Henderson 2011). This

information and guidance may be «initiated by various actors, [such as] state actors, media, private companies, or non-governmental organizations» (idem).

These «governing techniques» (Soneryd/ Uggla, 2015: 917) also denominated as "'technologies of responsibilization'» (Soneryd/ Uggla, 2015: 914) are used in parallel to «[...] modes of governance that represent traditional state-centred regulation (e.g. legislation and taxes) and/or target technical systems (e.g. smart grids) or collectives (e.g. Vélib bicycles)» (idem). As they are to a considerable extent dispersed among various actors, «to most consumers, they do not appear to be forms of governing» (idem: 917) (cf. Soneryd/ Uggla, 2015: 917). Even though, «citizens are increasingly addressed as responsible consumers» (idem: 919) in this way.

The Austrian Ministery for sustainability and tourism, for example, started working with an information campaign about food waste in cooperation with various corporations, that were accredited the campaign's label; inter alia the SPAR and MERKUR supermarkets (cf. bmnt.gv.at, Handel& Produktion), central to this master's thesis. The Ministery thus seems to have become an important actor in the Viennese food saving movement. As it's label, showing a heart shaped fruit functioning as a frame for the slogan «Lebensmittel sind kostbar», can be used by all the participants in the initiative (cf. bmnt.gv.at, "Die Initiative"), it can be seen as a tool of symbolic integration. The latter being a characteristic of new social movements as already mentioned with Stickler and Raschke. (cf. Stickler, 2005: 94; Raschke, 1991: 32f)

As for the double movement discerned between the supermarkets and the so-called citizen-consumers, an additional double movement between government and society as a whole, can be perceived. One can probably gather, that inter alia societal interest for the food waste issue and alternatives like food saving, and actions already taken in connection with this movement, induced government to get involved in the subject. Subsequently, this involvement may have attracted, and may further on attract citizens to participate in a more sustainable lifestyle, as «[t]he governing through technologies of responsibilization has the effect of shaping a dominant subject position [...]» (Soneryd/ Uggla, 2015: 914).

The concept of a new social movement being introduced, and the Viennese food saving movement being defined, as well as its central stakeholders being identified, it can be interesting to briefly point out a few of the so far main findings about possible influences of food saving activities belonging to the global food saving movement onto the, in the beginning of this master's thesis summarized, global hunger reduction situation.

#### 6. Possible FLW reduction impacts

# 6.1 Possible impacts of FLW reduction on hunger at an international level

Yosuke Munesue, Toshihiko Masui and Takesato Fushima state in their study «The effects of reducing food losses and food waste on global food insecurity, natural resources, and

greenhouse gas emissions» (2014) that, «[f]ood losses and waste deprive the poor living in developing regions of opportunities to access food, cause significant depletion of resources such as land, water and fossil fuels, and increase the greenhouse gas emissions associated with food production» (Munesue/ Masui/ Fushima, 2014: 43).

The depletion of these resources additionally worsens the hunger situation, as they would have been used in food production if they would not have been wasted before (cf. Munesue/Masui/Fushima, 2014: 44-45).

To investigate the possible effects of food waste reductions in developed regions onto the hunger situation in developing regions, the authors calculated a laboratory situation «simulating the effects of developed countries reducing FLW by up to 50% during the postharvest handling and storage, processing and packaging, distribution, and consumption steps [...]» (Munesue/ Masui/ Fushima, 2014: 58) (cf. Munesue/ Masui/ Fushima, 2014: 58), their base year being 2007 (cf. idem: 43). These 50% in FLW being a possible goal on one side, but also being an ambitious goal for the immediate future on the other side (cf. idem: 58), «sensitivity analyses were performed to estimate the effects of food wastage reduction in a feasible manner» (Munesue/ Masui/ Fushima, 2014: 58).

In the first place, the study's findings confirm that through a 50% reduction in food losses and food waste in developed regions, «the number of undernourished people in developing regions [could be reduced] by up to 63.3 millions, which is equivalent to 7.4% of the total [...]» (Munesue/ Masui/ Fushima, 2014: 69); the base year being 2007 and this result being achieved without taking into account income revision (cf. Munesue/ Masui/ Fushima, 2014: 63). The laboratory situation made it clearer to perceive, that with «[...] reductions in food losses giv[ing] rise to a decrease in food demand in developed regions and lead[ing] to an excess in the food supply worldwide» (Munesue/ Masui/ Fushima, 2014: 61), the international prices for all commodities would decrease (cf. Munesue/ Masui/ Fushima, 2014: 61). Then, «[t]he decline in international food prices [would also] lead[...] to low food prices in domestic markets and increase[...] the purchasing power of the poor in developing countries» (Munesue/ Masui/ Fushima, 2014: 61). In a second step, nonetheless, income revision should be taken into account, because the «[c]onsideration of market mechanisms [generally] appears to be lacking in the research conducted on food losses and waste»

(Munesue/ Masui/ Fushima, 2014: 46). Lower prices, hence, would not only increase the purchasing power of the poor, they would also «eliminate incentives for increased food production in all commodities except sugar and sugar crops» (Munesue/ Masui/ Fushima, 2014: 61), and the logically following decrease in production would lead to lower incomes (cf. Munesue/ Masui/ Fushima, 2014: 62). Consequently, the number of undernourished people would not decrease anymore by 63.3 million, but by 53.1 million and «the average per capita income in developing regions would decrease by 0.3% compared to that in 2007» (Munesue/ Masui/ Fushima, 2014: 63) (cf. Munesue/ Masui/ Fushima, 2014: 63). This would again also «affect the purchasing power of the poor and decrease the average dietary energy supply by 1.4-1.2%» (Munesue/ Masui/ Fushima, 2014: 63) in developing regions (cf. Munesue/ Masui/ Fushima, 2014: 63). Thus, «the income decline counteracts the effects of food loss reduction on food insecurity, especially in Southern Asia, South-Eastern Asia, Latin America, and the Caribbean» (Munesue/ Masui/ Fushima, 2014: 63). Generally, the reduction rates for Sub-Saharan Africa stay lower than for the former even if «the prevalence of undernourishment was the highest in Sub-Saharan countries in 2007» (idem: 64-65) (cf. Munesue/ Masui/ Fushima, 2014: 64-65). For Brazil though, «the number of undernourished people [would even] increase[...] by up to 0.2 million in Brazil» (Munesue/ Masui/ Fushima, 2014: 65). In this way, the simulation with income revison taken into account shows, that possible effects from food loss and waste reduction around 50% would be favourable for some regions, but rather unfavourable for others; there would be a shift in the global food balance. (cf. Munesue/ Masui/ Fushima, 2014: 62) Food loss and waste reduction thus seems to be one feasible approach to influence hunger reduction at the international level, even if «the decrease in food production resulting from food loss reduction would not contribute to the improvement of food insecurity [...]» (Munesue/ Masui/ Fushima, 2014: 65).

Hence, the global food saving movement's progressive and radical (after Giménez and Shattuck, 2011) stakeholders and then also more specifically the here central progressive stakeholders of the Viennese food saving movement, could be seen as contributing to the hunger reduction efforts in some regions of developing countries, by saving food in industralized countries. They at least contribute to mitigate the food price issue that has already been mentioned in this master's thesis, refering to the FAO, IFAD and WFP (FAO/IFAD/WFP, 2015). The then furthermore decreasing production also stands for less non-productive use of land and water that would worsen hunger and hamper poverty alleviation, as seen in FAO studies. (cf. FAO, 2015<sup>a</sup>). Nonetheless, to reach the ideal of a 50%

cut, «multilateral solutions are required involving changes in consumer purchasing, marketing channels for distribution, and public awareness» (Munesue/ Masui/ Fushima, 2014: 71).

Further research has been going on since the Munesue at al. study and Majid Shafiee-Jood and Ximing Cai from the University of Illinois wrote the review «Reducing food loss and waste to enhance food security and environmental sustainability» (2016), «highlighting the importance of FLW reduction as a necessary and complementary solution within the sustainable food system framework» (Shafiee-Jood/ Cai, 2016: 8433) aiming at a sustainable food security (cf. Shafiee-Jood/ Cai, 2016: 8432). They state that bringing about the latter, cannot be achieved alone by FLW reduction but it can be taken as a complementary solution, for example, with yield increase and a shift towards a healthier diet (cf. idem: 8438).

Besides the international, a more regional approach also appears to be relevant, as Munesue, Masui and Fushima more precisely state that «[r]educing food losses and food waste in developing regions can be an effective way to fight hunger and make better use of natural resources» (Munesue/ Masui/ Fushima, 2014: 70) in those regions (cf. Munesue/ Masui/ Fushima, 2014: 70). Not to forget, food loss and waste reduction seems to be an adequate method to work against hunger in developed regions as well, as inter alia described by the European Federation of Food Banks. (cf. eurofoodbank.org, «Poverty in Europe»)

# 6.2 Possible impacts of FLW reduction on hunger in the respective economy

The impacts of FLW reduction on the economy in which the latter happen, seem to be worth a contemplation. Martine Rutten, being highly involved in the subject, (for example, also coauthor of «Reducing food waste by households and in retail in the EU. A prioritisation using economic, land use and food security impacts», 2013 and «Potential impacts on sub-Saharan Africa of reducing food loss and waste in the European Union» 2015) found some explanations through economic theory, that seem to be relevant observing supply chains from farm to fork of individual commodities (cf. Rutten, 2013: 3). Concrete differences can be perceived between the impacts of loss avoidance on the supply side (cf. idem) and waste avoidance on the demand side (cf. idem: 4). The former seemingly having as a consequence that prices drop, so that «[...] consumers can buy more food at a lower price, resulting in a welfare gain to consumers [...]» (Rutten, 2013: 3) and additionally that «producers can sell more, but at a lower price [...], which is also positive» (idem). Consequently, the impacts of food loss avoidance can be seen as being most of all «encouraging from the perspective of low-income countries, where food losses on the supply side dominate» (idem) (cf. Rutten,

2013: 3). One has to note nonetheless, that «[...] the size of the impacts will depend, amongst others, on how big the losses are relative to the size of the market, which [...] varies by type of food and country or region» (Rutten, 2013: 3). The change of the price also brings about, that «the size of the impact [...] is much smaller than the original size of the problem [...]» (idem). The latter (waste avoidance on demand side), meaning a dropping commodity price but as well smaller sales for producers, negatively affecting their welfare (cf. Rutten: 2013: 4). Whereas «food security is going up for consumers» (Rutten: 2013: 5). It becomes clear, that «[...] trade-offs occur between producers and consumers in [the] market, with the former being worse off, and potentially leading to negative employment effects» (idem). Then shifts can happen between commodity markets as consumers may want to spend their saved expenses in other markets, leading to higher price and quantity for consumers and producers in those markets (cf. Rutten: 2013: 5). Yet, «[i]f consumers add the saved expenditures on previously wasted food to savings, the money could be used for consumption in future with associated utility gains then being realised» (Rutten: 2013: 5). Generally, «[t]he overall welfare impacts in the market of the food commodity in which waste is reduced and other markets combined thus depends on consumer preferences» (Rutten: 2013: 5). As a consequence, the impacts of food waste avoidance can be seen as being most of all «[...] ecouraging from the perspective of medium-and high-income countries, where food waste on the demand side is high on the policy agenda» (idem) (cf. Rutten: 2013: 5).

On the whole, it applies for food losses and/ or for food waste that «[t]he impacts may be much smaller if only a part of [them] is avoidable» (Rutten: 2013: 6) and that possible avoidance not only depends on the benefits but also on the costs involved compared to the status quo. (cf. Rutten: 2013: 6) For example, «[u]navoidable food losses, respectively waste, are generally considered by the literature as being inedible, such as bones, skins and peelings[,] [they] represent about 19% of the food lost and wasted» (Rutten: 2013: 6). Food loss reduction costs on their side, «[...] will have a price-increasing and quantity-reducing effect in the market for the food commodity in question, counteracting the original shift down [...] that occurs when reducing food losses in supply and counteracting the observed welfare gains» (idem). (cf. Rutten: 2013: 6)

In real economy this may imply that «[...] it is better for agri-food producers and suppliers to allow for some food losses (at a relatively low cost) rather than to take measures (at a relatively high cost and low returns) to combat them [...]» (Rutten, 2013: 7). At the same time, «[...] the relatively low cost (price) of food may prevent [consumers] from taking action» (idem). It has to be considered that the «[...] costs to tackle food losses may be borne in, say the beginning of the supply chain, whereas the benefits may occur later in the chain. This and the time

dimension associated with costs occurring upfront, and benefits- if any- occurring later, often impedes relevant actors to take action» (Rutten, 2013: 7).

These cirumstances seem to attenuate the initial, theoretically only positive, effects of FLW reduction in a respective economy.

Martine Rutten even detects and refers to possible so-called second-order effects (cf. Rutten, 2013: 7). Which can include, that food as feed becomes cheaper and consequently, the meat demand will increase as meat becomes cheaper as well. Enlivend meat production though «is less efficient in the use of resources compared to crops in that it uses relatively more land and water» (Rutten, 2013: 7) (cf. Rutten, 2013: 7). The ecological effect of reducing FLW would then be weakend. Additionally, «biofuel use may go up» (Rutten, 2013: 7) and «households may waste more if food becomes cheaper, undoing the positive impact of reducing food losses on the supply side» (idem). (cf. Rutten, 2013: 7)

Nevertheless, high poverty and hunger numbers seem to make it unjustifiable to completely omit the efforts of FLW reduction. The European Federation of Food Banks, for example, takes the 119 million people living in poverty in Europe and 43 million of them suffering from severe material deprivation, being unable to afford a quality meal every second day, as main motivation besides positive ecological effects (cf. eurofoodbank.org, «Poverty in Europe», «Food waste»).

In this place, the food saving movement's possible contribution to the reduction of hunger by reducing FLW and thus, under certain circumstances helping make more food commodities at better prices available, has been outlined. It should not be forgotten though, that everyday redistribution efforts in the field by, for example, food saving organisations contribute to immediate short term hunger reduction.

In the following, the earlier briefly mentioned actors forming part of the specifically Viennese food saving movement, that are central to this master's thesis, can be described in more detail.

# 7. Selection of The Viennese food saving movement's actors and their sustainability efforts

# 7.1 NGOs and civil society

#### 7.1.1 foodsharing Austria

foodsharing Austria has its origin in Germany, more precisely in Berlin, where Raphael

Fellmer dumpstered in waste containers of biosupermarkets during the summer of 2011. In October 2011, *Taste the waste* by Valentin Thurn, a documentary about food waste and its consequences worldwide came into the theatres and made food waste a popular subject in society. Thus, from January 2012, Raphael Fellmer contacts the biosupermarket chains he's dumpstering at, to suggest a cooperation to save food and finds a partner in Georg Kaiser, director at the Bio Company. They are able to work together from March 2012. (cf. wiki.foodsharing.de, «Geschichte von foodsharing»)

A few months later, during summer, Raphael Fellmer and his friend Martin Schott are looking for a more easy and efficient way, to save food and redistribute it. They learn about foodsharing e.V by Valentin Thurn and its crowdfunding campaign, organized by Sebastian Engbrocks, to gather the necessary financial means to start the website *foodsharing.de*. The Bio Company and the state North Rhine-Westphalia become main sponsors of the foodsharing association. From automn 2012, already 100 foodsavers in Berlin and Hamburg are coordinated by Raphael Fellmer. Their next objective is the cooperation with all the stores of the Bio Company and with additional food companies. (cf. wiki.foodsharing.de, «Geschichte von foodsharing»)

On 12<sup>th</sup> December 2012, *foodsharing.de* goes online and helps households as well as companies to share groceries more efficiently. The movement becomes more apparent, and thus, gets media attention in spring 2013. The news broadcast *Tagesschau* and the programme *SternTV* report on foodsharing. (cf. wiki.foodsharing.de, «Geschichte von foodsharing»)

Later that year in summer 2013, Raphael Wintrich creates an online tool to organise foodsavers in Cologne. In August, a beta version of his tool: *lebensmittelretten.de*, goes online, surrounded by a growing and improving team. Which also means, that from summer 2013, there are two organisations explicitly saving food in Germany. From autumn 2013, the first group of foodsavers comes to Austria, with its platform *myfoodsharing.at*. (cf. wiki.foodsharing.de, «Geschichte von foodsharing»)

Approximately a year later, on 13<sup>th</sup> and 14<sup>th</sup> September 2014 the foodsharing e.V board and the organisational team around *lebensmittelretten.de* meet in Berlin. They find a consensus for the differing starting positions and prepare a merger. On 12<sup>th</sup> December 2014, the second anniversary and the merger are celebrated with a flashmob in Berlin. At that moment, there are 60'000 registered foodsharing users in Germany, Austria and Switzerland and 9'000 foodsavers. Two more years later on 12<sup>th</sup> December 2016, the former foodsharing e.V. board and the former *lebensmittelretten.de* organisational team present themselves as a joint board. (cf. wiki.foodsharing.de, «Geschichte von foodsharing»)

# 7.1.1.2 foodsharing Austria's approach to saving food

foodsharing Austria wants to draw society's attention towards food waste and the possibilities to prevent it, and thus, the possibilities to preserve resources needed for production that would otherwise also be wasted. (cf. wiki.foodsharing.de, «foodsharing und Bedürftigkeit») It seems to be a central step if stores and other businesses work with foodsavers and other charitable organisations, to show their customers the importance of saving food and the possibilities to do so. The social and ecological responsibility of businesses and customers has to become more apparent. (cf. wiki.foodsharing.de, «Kontext und Selbstverständnis»)

To foodsharing and the foodsavers, food also has a so-called sentimental value, the objective is thus, to pass it on to people cherishing food. In this context, they also collect otherwise lost commodities at businesses working mainly with other organisations but that are, for example, unable to take all the surplus products. Or they also pick up products at businesses where other organisations don't pass every day. Most of all, foodsharing's foodsavers nonetheless save food at businesses where the amount of food that can be collected is to small for other organisations (cf. wiki.foodsharing.de, "Briefing Öffentlichkeitsarbeit. Unterschiede zur Tafel"). In this way, they can help make the food saving system more efficient. (cf. wiki.foodsharing.de, «Kontext und Selbstverständnis»)

It is crucial to foodsharing Austria that every person no matter her origins, social standing or faith can save and share food. It is not the main purpose of the organisation to provide food for people in need, and it is non of foodsharing's competences to define the neediness of a person. Foodsavers and their surroundings should have the possibility to live a more self-determined life as consumers, they should not become dependent on foodsharing out of a situation of emergency and food scarcity. Foodsavers are allowed to keep as many saved products as they are able to consume for themselves, then they can share the rest with other people on their own responsibility. (cf. wiki.foodsharing.de, «foodsharing und Bedürftigkeit»)

## 7.1.1.3 Financial means

foodsharing Austria cares about working as much as possible without money. The idea is to most of all invest energy and time into the saving of food and not into the procurement and management of eventually necessary means. Foodsavers are not allowed to ask money in any way for the saved food they pass on and all the events organised by foodsharing are admission

free. In line with this ideal, the foodsharing platform is Open Source and can be used for free, the A&B lawyer's office doesn't charge foodsharing for its advice and legal support, Manitu GmbH provides servers for free and Greensta.de provides a server and the domain without costs, Print Pool sponsors needed print work. Additionally, many collaboraters work on a voluntary basis concerning organisation, mediation, press, internationalisation, translation, IT support, events, wiki, to only mention a few tasks that need to be undertaken. Involved money from natural persons, associations, government or other institutions is always given to natural persons working for foodsharing, who in this way become able to pay for the most needed inventory; never to foodsharing itself. (cf. wiki.foodsharing.de, «Umgang mit Geld bei foodsharing»)

If absolutely necessary collection tins can be placed, for example, to cover expenses for supraregional events. They can also be used if no sponsor is available, but the collected financial means' purpose has to be explicitly disclosed. Later earnings and expenses have to be made transparent. (cf. wiki.foodsharing.de, «Umgang mit Geld bei foodsharing»)

In foodsharing Autria's concept of working together to save food, the formerly also mentioned individual citizen in its role of a citizen-consumer, important to new social movements, seems to be a central force.

## 7.1.1.4 The citizen-consumer and political consumerism

The political consumerism exerted by citizen-consumers in this place, seems to happen in form of «lifestyle politics» (Stolle/ Micheletti, 2013: 41). Micheletti and Stolle defined those lifestyle politics refering to Easton (1965) «[...] as the choice to use an individual's private life sphere to take responsibility for the allocation of common values and resources, in other words, politics [...]» (idem) (cf. Stolle/ Micheletti, 2013: 41). The foodsavers involved in foodsharing Austria's work, seem to exactly do this: they use their private life sphere to save food and redistribute it accordingly to the common values of their NGO. In this manner, they can maintain a collective identity which can help foster progress, as «[p]olitical consumerism is practiced individually even though only large numbers of political consumers are likely to exert influence on and change corporate behaviour» (Stolle/ Micheletti, 2013: 43) (cf. Stolle/ Micheletti, 2013: 42-43). A characteristic of political consumerism furthermore is, that not only governments are targeted, but also «large multinational corporations, and beyond that international organisations [...] and other powerholders» (Stolle/ Micheletti, 2013: 43) (cf. Stolle/ Micheletti, 2013: 43). In conformity with this, foodsavers active through foodsharing

Austria also save food from multinational supermarkets as confirmed by Julia Dagmar from foodsharing.

Yet, citizen-consumers don't need to be organised through an NGO, or any association needing a membership to exert their political consumerism. Most of all, the latter is practised in everyday settings and «[c]hoices are made depending on the carbon, ecological, or sweaty footprint left by products» (Stolle/ Micheletti, 2013: 42). Various ideas, actions and blogs by Viennese and Austrian citizen-consumers are, for example, presented at the Zero Waste Austria website by Helene Patterman, communication and project manager. (cf. http://www.zerowasteaustria.at/projekte.html)

It seems important to point out, that «[p]olitical consumerism is an example of how citizens have turned their attention to the market arena to be able to voice their concern about production, labor, environmental, and other objectionable corporate practices» (Stolle/Micheletti, 2013: 58)

After the concept of foodsharing Austria has been described, and the partially connected to it concept of the citizen-consumer and its practice of political consumerism has been illustrated in more detail, the differing concept of the Österreich NGO can be exemplified.

# 7.1.2 Lebensmittelrettung Österreich

Lebensmittelrettung Österreich was founded in Vienna in 2016, by the Verein StartUp, already having begun it's activities in spring 2014 saving food from Turkish bakeries and social markets with a bicycle and a bike trailer. Back then, saved food was handed out from a basement storage. In autumn 2014, Verein StartUp signed its first cooperation contract with a food store chain and was able to move to a private arbour. The year 2015 was entirely devoted to further expansion, and the association could move to the first own club house in Hernals in Vienna with an integrated Foodpoint. Already around 500'000 kg of food were saved with now two refrigerated vans. With the foundation of Lebensmittelrettung Österreich in 2016 cooperation with additional food store chains, producers and other organisations became feasible to the Verein StartUp. The organisation was also able to gain a wide network of private supporters and volunteers. In 2017, Verein StartUp and Lebensmittelrettung Österreich launched the first mobile social market in Vienna. (cf. verein-startup.at, "START UP, Geschichte")

# 7.1.2.1 Lebensmittelrettung Österreich's approach to saving food

Lebensmittelrettung Österreich is an organisation supporting the networking of professional food saving associations and the exchange and passing on of surplus stock. (cf. vereinstartup.at, "START UP. Geschichte") The organisation's main objective is to be a bridge between abundance and poverty, as its slogan «Ihre Brücke zwischen Überschuss und Armut» reveals. Lebensmittelrettung Österreich cooperates with many of Austria's leading grocers and producers to save commodities that are unsuitable for trade, but can still be consumed. (cf. lebensmittelrettung.at, "Über uns") Saved food will be sold at good prices at the two social markets and social cafés, also called Foodpoint, to people in need. In the meantime, 6'000 members are in this way able to obtain essential nutrition, as otherwise most of them can't afford it entirely on their own. Lebensmittelrettung Österreich also supports institutions for homeless people and monasteries with food deliveries. In general, the organisation collects food to save in regular and agreed on intervals, but spontaneous and unique tours are possible too. The aim is to work in a quick and professional manner. To assure an unbroken cold chain for saved food, they at the moment drive four refrigerated vans. (cf. Official Flyer, Lebensmittelrettung Österreich, Appendix 1)

It is crucial to the organisation that at no moment, begging for food for a good cause will be considered. A professional service shall be provided to the cooperating partners, in the sense that they will have less waste management costs to bear, less additional effort for their employees to take and that they can improve their social image. (cf. Official Flyer, Lebensmittelrettung Österreich, Appendix 2)

Lebensmittelrettung Österreich picks up products with an expired best-before date or damaged packaging, remaining stock and seasonal goods. (cf. Official Flyer, Lebensmittelrettung Österreich, Appendix 3)

As two concrete examples of NGOs involved in the Viennese food saving movement have now been presented with their sustainability objectives, the supermarkets of the three supermarket companies SPAR, REWE and dennree that are central to this master's thesis shall also be described in more detail.

# 7.2 Supermarkets

# 7.2.1 SPAR Holding AG

A first relevant example are the supermarkets of the Austrian SPAR Holding AG. As mentioned earlier for the description of the retail level and the supermarkets in general, the SPAR supermarkets also have their beginning in the post-war period. The Tyrolese wholesaler Hans F. Reisch founded the commercial alliance called SPAR Tirol/ Pinzgau in 1954, bringing together independent traders to organize a common sales chain around the purchasing of goods, the necessary technique and the marketing. In the 1960's, this commercial alliance became a pioneer in the, for the current supermarket and sales system so important, self service. In 1970, SPAR Tirol/ Pinzgau expanded into the SPAR Österreichische Warenhandels-AG, which built the INTERSPAR consumer markets in the 1980's; the latter progressively developed into large shopping centres. With the 1990's came the internationalization of the working-group, and ASPIAG, the Austrian SPAR International AG with head office in Widnau, Switzerland was founded. Since then, the SPAR trading firm expanded into northeast Italy, Slovenia, Hungary and Croatia pursuing the vision of becoming a Central European business group. (cf. spar.at, «Geschichte»). To this end, the SPAR Holding AG was founded in 2011 (cf. spar.at, «Geschichte»).

Currently, the Holding employs more than 42'800 members of staff (cf. spar.at, «Vision, Werte und Strategie») in the 1'620 Austrian stores of all kinds (cf. spar.at, «Lebensmittelhandel Österreich»). A SPAR supermarket can then more specifically be understood as a fully stocked local supplier with up to 1000qm. The consumer will find a large fresh food area and be given personalized and specialized advice (cf. spar.at, «Geschäftstypen. SPAR-Supermarkt»).

## 7.2.1.2 Corporate social responsibility and environment by SPAR

The SPAR conviction says, that responsible action includes the achievement of ecological, social and economic objectives, as the SPAR Holding AG is an economically oriented group, seeking economic success. However, SPAR seems to be well aware of its societal and corporate social responsibility and therefore established social and ecological activities in fives areas around its core business. These areas are sustainable production, healthy diet,

employees, societal responsibility and environment. Nonetheless, sustainable activities have to be of use for the Holding in general, to be pursued and only in this case, SPAR will be able to elaborate social values through these activities. One could understand the SPAR philosophy in a way that sustainability has to be economically bearable, to assure meaningful value creation for the future. (cf. spar.at, «Philosophie und Strategie von CSR bei SPAR») Since the 1990's SPAR works with its concept of the «triple bottom line», trying to meet the needs of its customers, society and the own company. (cf. spar.at, «Nachhaltigkeit ist seit Jahrzehnten Teil der SPAR-Kultur»)

Among the activities in the area of sustainable production, one can also find SPAR's waste reduction and thus, at the same time, food saving efforts. (cf. spar.at, «Lebensmittel sind kostbar»)

## 7.2.1.3 Waste reduction efforts to save food at SPAR

SPAR states, that there is much less food waste in grocery trade than generally assumed, as it causes additional costs besides, of course, the ethic aspects. Only 1-2 percent of products in stores have to be disposed of. (cf. spar.at, «Lebensmittel sind kostbar»)

To avoid food loss, SPAR in the first place sells bread, cheese, sausage and meat on a fresh food counter with service. The sold products are additionally wrapped up in paper, in this way, constumers don't have to buy more than they are able to consume, and there's less throwaway packaging. Then, SPAR has a specialized ordering system for the dry goods range including, for example, rice, noodles and sugar, making it possible to order very precisely. Apart from this, the products in this range have long sell-by dates, hence only a few packages will not be sold. Moreover, nearly every store has a baking station and products can be crisped up in line with demand. From afternoon to closing time, only 15 products will be kept in the offer in specific quantity. Orders from regional bakeries will be sold at reduced price the other day, if not sold. Additionally, more long-life milk and long-life dairy products are available, as manufacturing conditions in dairies improved considerably. Fresh milk products can most of all not be sold on weekends, and are then passed on to social markets. Finally, the order department works on highly concise orders for fruits and vegetables. Following ongoing controls, products still have to be sorted out regularly. (cf. spar.at, «Lebensmittel sind kostbar»)

SPAR operates these procedures under the earlier mentioned label «Lebensmittel sind kostbar» by the Austrian ministery for sustainability and tourism. In sum, they can be seen as

procedures of prevention to food waste, in the following section, possibilities to save additional products thereafter, will be introduced.

# 7.2.1.4 Commodities not meeting the aesthetic standard

The majority of fruit and vegetables for the fresh food market meet trade and customers' expectations. During local harvest time, SPAR, for example, sells second choice fruit in bigger boxes and buckets, they then contain more sizes and colours as well as peel damages. The packages of the own label S-BUDGET also contain fruit not meeting the aesthetic standard. Second choice fruit and vegetables are offered with this kind of system, because selling them next to first choice commodities, would not be profitable for producers. Customers only choose second choice commodities if they see a distinct price advantage. Apart from selling these commidities in bigger quantities, SPAR also takes them as raw material for ready-to-eat-meals, juices and soups. (cf. spar.at, «Nicht perfekt, trotzdem gut»)

# 7.2.1.5 Sales

The SPAR supermarkets also started to use stickers with the «Lebensmittel sind kostbar» slogan and logo for sales. In this way, consumers are reminded of the fact, that even if a product reaches its sell-by date, it can still be consumed and is still of value. With the new logo, customers should additionally be made to remember, that they preserve the environment if they buy products at a reduced price, as these products consequently don't need to be disposed of. (cf. spar.at, «Abverkauf statt Lebensmittelverschwendung»)

#### 7.2.1.6 Passing on of products

As soon as the sell-by date has been reached, stores are not allowed anymore to sell a product, even if it could still be consumed. In this case, the SPAR supermarkets pass on the products to social markets. In every region where there are social markets or similar institutions, the SPAR stores have fixed cooperations for the passing on of products. Usually the social markets pick up the sorted out products once or twice a week, this means that there will be bread to dry for human consumption. Thus, SPAR initiated a pilot project with Fixkraft, a producer of high quality animal feed. Bread from the SPAR supermarkets will be sent once a week into animal feed production, like this, it stays in the food life cycle which also means

that its value loss is smaller as if it had to be disposed of. (cf. spar.at, «Altbrot wird zu Futtermittel»)

This procedure of passing on the products and commodities that can't be sold anymore because of their sell-by date, or because of other problems like the ones mentioned in the section about food loss at the retailers' level (damaged packages, product breakage and other apparent flaws), is of main interest in the context of this master's thesis. It's also part of the sustainability program of the supermarket chain MERKUR, which belongs to the REWE GROUP.

## 7.2.2 REWE GROUP and MERKUR

The REWE GROUP had a beginning similar to the one of the SPAR HOLDING AG. In 1953, Karl Wlaschek opened a discont perfumery, to sell branded articles at good price. In 1960, the grocery departement was added and in 1961, self service was introduced. Consequently, the name was adapted to the changes becoming the BILLA, standing for «billiger Laden», low cost store in English. Karl Wlaschek's enterprise progressively expanded during the 1960's and as the first 1000qm self service store opened its doors, the MERKUR Warenhandels AG was founded. From that moment on, the stores were specialized in fresh and frozen foods. (cf. rewe-group.at, «Die Geschichte der REWE International AG»)

In 1977, the AG was transformed into a joint-stock company because it already had reached the size of a corporation. In 1980, a company-owned perfumery chain called BIPA was set up and in 1983, MONDO, a discont chain, today called PENNY. In the 1990's, own labels found there way into the shelves as, for example, the organic label *Ja! Natürlich*, the convenience brand *CHEF Menü*, entry level brand *clever* and premium label *Quality Line*. During the 1990's MERKUR Warenhandels AG also initiated cooperations with regional farmers. (cf. rewe-group.at, «Die Geschichte der REWE International AG»)

In 1996 the joint-stock company MERKUR Warenhandels AG became part of the German REWE GROUP. Today, expansion is happening in Bulgaria, Croatia, Russia, Slovakia, the Czech Republic, and Ukraine. (cf. rewe-group.at, «Die Geschichte der REWE International AG») Currently, the trading companies BILLA, PENNY, BIPA, ADEG and MERKUR belong to REWE International AG. A total of 42'300 employees work in 2'500 stores in Austria (cf. rewe-group.at, «Über Uns»).

# 7.2.2.1 Sustainability as part of the REWE corporate strategy

In 2008, sustainability became a binding part of the REWE corporate strategy. Since then, sustainability related work has been organised in four main areas: 'green products', 'energy, climate and environment', 'employees' and 'social commitment' (cf. Hensel, gemeinsamnachhaltig.at, 2017, «Vorwort. Nachhaltigkeitsbericht»). The area around green products and the last area containing the motivation to reduce food waste (cf. gemeinsam-nachhaltig.at, «Gesellschaftliches Engagement. Reduzierung der Lebensmittelverschwendung») are the central ones for this work.

REWE was progressively able to detect the importance of sustainability for two-thirds of its customers, for example, through regularly carried out surveys (cf. gemeinsamnachhaltig.at, «Grüne Produkte. Entwicklung nachhaltigerer Sortimente»). Customers increasingly make their buying and consuming decisions dependent of social and ecological factors. Thus, REWE steadily expands its range of sustainable products and services. Therefore, own label products, if imported, originate from newly industrialized countries that passed a social audit. (cf. gemeinsam-nachhaltig.at, «Grüne Produkte. Management-Ansatz») And supply chains are more and more aligned to internationally recognized certification, as well as to own sustainable guidelines (cf. gemeinsam-nachhaltig.at, «Grüne Produkte. Entwicklung nachhaltigerer Sortimente»). In 2011, REWE aditionally published a guide about minimum standards for own label sustainable products; these standards are higher than official legal standards (idem).

In 2010, REWE introduced the PRO PLANET label, certifying a socially and ecologically favourable production background of specific products. The conferment of this label needs the consent of an independent advisory council. In 2016, 250 products were accredited to the PRO PLANET label. In 2017, an evaluation for fruit and vegetables takes place. (cf. gemeinsam-nachhaltig.at, «Grüne Produkte. Entwicklung nachhaltigerer Sortimente. PRO PLANET»)

To conclude a short overview of sustainable decisions taken at the REWE International AG, regionality has to be broached. It seems to be specifically important to customers, as they care about the transport route of products, food freshness and support for regional agriculture. The in this place important trading firm MERKUR, for example, runs the initiative «Marktplatz Österreich» giving regional producers and marketers the opportunity to place their products; at the moment 7000 products from 500 regional suppliers can be counted. Good business relations are of main interest, and suppliers are supported in their

marketing, logistics and product labeling. (cf. gemeinsam-nachhaltig.at, «Grüne Produkte. Entwicklung nachhaltigerer Sortimente. Regionalität»)

# 7.2.2.2 Food waste reduction efforts at REWE and MERKUR

Yearly, one percent of the total turnover from food at REWE is wasted. The most affected products are bread and bakery products, fruit and vegetables, as well as meat. To reduce this food waste, the trading firms of the REWE International AG, pay attention to product ordering in line with demand, coordinated logistics, sensitization of customers and cooperation with social foundations. (cf. gemeinsam-nachhaltig, «Gesellschaftliches Engagement. Reduzierung der Lebensmittel-Verschwendung») As for SPAR, nearly every store has a baking station, to avoid surplus products that can't be sold by the end of a day (cf. idem, «Glossar. Lebensmittelspenden»). MERKUR also processes fruit and vegetables having apparent flaws, but still being convenient for human consumption in the MERKUR restaurants and for products of the own label «Nach Art des Hauses» (cf. idem, «Glossar. Lebensmittelabfälle»).

Since October 2013, MERKUR sells regional carrots, potatoes and apples at very good price because of their unusual shape through the initiative «Wunderlinge» (cf. merkurmarkt.at, «Wunderlinge. Der Geschmack ist entscheidend»). In 2014, this initiative won the Viktualia price by the Ministery for agriculture, forestry, water management and environment. In 2016, 18 types of fruit and vegetables were available in context of the initiative and on the whole, 3,3 tons of «Wunderlinge» could be sold. This means, that more than 7000 tons of fruit and vegetables didn't need to be disposed of or, for example, used as animal feed. (cf. gemeinsam-nachhaltig.at, «Grüne Produkte. Entwicklung nachhaltigerer Sortimente. Wunderlinge»)

An additional initiative, denominated «Brot für Bedürftige», constantly helps reducing food waste. For already ten years, MERKUR supermarkets have offered fresh bread every day to social foundations for people in need. Depending on the foundation, this bread is collected once to five times a week. (cf. merkurmarkt.at, «Soziale Verantwortung. Brot für Bedürftige») Of course, there are also other products passed on to cooperating organizations.

# 7.2.2.3 Passing on of products

Since 1999, the REWE trading firms pass on products that could not be sold, but can still be

consumed to charities (cf. gemeinsam-nachhaltig.at, «Gesellschaftliches Engagement. Reduzierung der Lebensmittel-Verschwendung»). The 128 MERKUR supermarkets respectively cooperate with different social organisations and institutions. Most of all bread, dairy products, fruit and vegetables can be passed on to people in need. In this connection, REWE annotates that grocery trade is always conflicted about meeting customers' expectations with wide ranges of products and recovering not sold products. (cf. idem, «Glossar. Lebensmittelspenden»)

Two of the retailing concepts by SPAR and REWE, trading most of all with conventional products, have now been presented and it can consequently be interesting to go over to describing the organic supermarket concept Denn's Biomarkt by the whole saler dennree.

#### 7.2.3 dennree and Denn's Biomarkt

dennree had its foundation in another decade than SPAR and REWE, the organic movement only started in the 1970's as pioneers were looking for fresh products not polluted with chemicals. Thomas Greim, only founder and owner of dennree until today, started his activities in 1974 in Töpen, Germany. He'd found a dairy, processing milk he bought at demeter farmers in Chiemgau into four dairy products: fresh milk, yogurt, soured milk and kefir. He'd sell the latter to health food shops and prototypes of natural food shops in Munich, being his own driver. Only a year later, in 1975 Greim was able to found the label dennree and from 1976, he had the possibility to take organic demeter fruit and vegetables into the assortment. (cf. dennree-biohandelshaus.de, «Unternehmen. Geschichte. Entstanden aus den Anfängen der Bio-Bewegung»)

Approximately ten years after Greim's first drives to Munich, dennree after the French «denrée» meaning «basic food», had become a central whole saler for organic products supplying other whole salers. Then, dennree changed focus in the mid-1980s and became a organic whole saler for retailers. As a consequence, the subsidiaries Living Crafts for natural fabrics and Denn's Biomarkt, with organic supermarkets in Germany and Austria, were established at the mid-1990s. (cf. dennree-biohandelshaus.de, «Unternehmen. Geschichte. Entstanden aus den Anfängen der Bio-Bewegung»)

Today, dennree's headquarters are still in Töpen, with a central warehouse of 70'000m<sup>2</sup>. (cf. dennree-biohandelshaus.de, «Unternehmen. Geschichte. Entstanden aus den Anfängen der Bio-Bewegung») They have 220 lorry drivers and 190 trucks, moving the

products from the central warehouse to eight regional centres and from the latter to the various retailers. On their return journey, they pick up organic products at the producers which means that there are no empty trips and thus, less in vain CO<sub>2</sub> emissions. (cf. dennree-biohandelshaus.de, «Unternehmen. Logistik. Logistik auf der Höhe der Zeit») Austria now has its own regional organic whole sale in Vienna with the dennree Naturkost GmbH. And dennree supplies 1'300 natural food shops in Germany, Austria, Luxembourg and Italy with an assortment of 12'000 products. Their own labels dennree, Königshofer, Gustoni and Yalia producing 600 of them. (cf. dennree-biohandelshaus.de, «Unternehmen. Geschichte. Entstanden aus den Anfängen der Bio-Bewegung»)

Thomas Greim still commits himself down the entire supply chain, to support the development of the organic sector. At the beginning of the 1990s, a community called Naturring to support markets and stores working in the sector, was build up; nowadays, it is known as BioMarkt. Partners of BioMarkt are supported in the planning of their store in general and of their product assortment, in developing their media concept and getting financial backing. In 2009, BioMarkt developed more into a buying group, to enhance solidarity in the sector and strengthen the competitiveness of the organic retail. The buying group set up a foundation called Zukunftsstiftung BioMarkt to support trendsetting sustainable projects, as well as initiatives and programmes for the further development of the ecological movement, most of all the ecological agriculture. (cf. dennree-biohandelshaus.de, «Unternehmen. Geschichte. Entstanden aus den Anfängen der Bio-Bewegung»)

Currently, dennree converts the former agrarian Eichigt farm located in the Saxon Vogtland into an organic farm (cf. freiepresse.de, «Agrofarm Eichigt bekommt im Frühjahr neuen Namen»), to gain surface for organic agriculture. They bought the estate in 2015, with dairy cow dams' keeping, extensive grassland farming and the cultivation of animal feed and cash crops. (cf. dennree-biohandelshaus.de, «Unternehmen. Geschichte. Entstanden aus den Anfängen der Bio-Bewegung»)

#### 7.2.3.1 dennree and organic quality

dennree as a trading company and all the available products are subject to the ecological regulation of the European Union from 1991, determining minimum standards for ecological agriculture and production in the European Union. Nonetheless, the ecological associations dennree works with and takes products from, often have higher production and processing

standards for ecological products. (cf. dennree-biohandelshaus.de, «Qualität. Kontrolle& Kennzeichnung. Achtung Kontrolle!»)

Like all ecological companies in the EU, dennree had to enrol with an official ecological checkpoint for controls on a regular basis, thus, there will be detailed on-site controls at least once a year. All the packed products of the dennree assortment hold the respective checkpoint code number. Additionally, the products meeting the standards of cooperating ecological associations hold the respective association logo. (cf. dennree-biohandelshaus.de, «Qualität. Kontrolle& Kennzeichnung. Achtung Kontrolle!»)

dennree also passes products through their own quality management, from the acceptance of goods to the delivery. The latter includes temperature controls and checks for visual flaws. Furthermore, product samples are sent to accredited external laboratories for regular tests. They search for microbial occurence, heavy metal pollution and genetically engineered organisms and do pesticide residue analysis. (cf. dennree-biohandelshaus.de, «Qualität. Kontrolle& Kennzeichnung. Achtung Kontrolle!»)

# 7.2.3.2 Understanding organic agriculture and production

The general rules, also included in the ecological regulation of the European Union, say that organic products are generated without pesticides, chemical fertilisers, genetic engineering and synthetic additives. Requirements are animal welfare, natural raw materials and a mostly sustainable and residue-free method of production. (cf. dennree-biohandelshaus.de, «Qualität. Anbau& Verarbeitung. Bio-Lebensmittel- Qualität im Einklang mit der Natur»)

The ideal framework for these natural raw materials is mixed farming, as it becomes possible to cultivate animal feed and use manure in a closed cycle. The preservation of the natural soil fertility is paramount in organic agriculture. To avoid the need of synthetic fertilisers and pesticides, organically working farmers grow mixed cultivation, integrating crops releasing nitrogene as a fertiliser and chosing sturdy crop types. They also adhere to a varied crop rotation. To avoid weeds, they use mechanical methods, remove them manually or only take purely herbal remedies. (cf. dennree-biohandelshaus.de, «Qualität. Anbau& Verarbeitung. Bio-Lebensmittel- Qualität im Einklang mit der Natur»)

The livestock's well-being is, inter alia, assured through the own animal feed production or the purchasing of the latter at other organically working farms. Moreover, no synthetic growth enhancerers will be added to the feed and no antibiotics will be given to the

livestock as a prevention for disease. (cf. dennree-biohandelshaus.de, «Qualität. Anbau& Verarbeitung. Bio-Lebensmittel- Qualität im Einklang mit der Natur»)

It has to be noted, that the ecological regulation of the European Union only allows a tenth of all additives that are used in conventional products. Artificial colouring, flavour enhancerers, synthetic flavourings, sweeteners and stabilizers can't be ingredients. (cf. dennree-biohandelshaus.de, «Qualität. Anbau& Verarbeitung. Bio-Lebensmittel- Qualität im Einklang mit der Natur»)

Besides the predominent organic ideal, whose parameters have now been described and which also contains the ideal of sustainability, dennree and thus also its denn's organic markets, adhere to further guidelines.

#### 7.2.3.3 denn's Biomarkt objectives

Similarly to its holding company the Austrian denn's Biomarkt chain insists on regionality, an important part of the assortment is provided by Austrian organic farmers. The stores as well insist on guaranteeing their customers high quality products that are not only partly, but one hundred percent organic. The relative production allows for respect towards nature, people and animals and is transparent, denn's Biomarkt makes it possible to their customers to visit the collaborating organic farmers and other suppliers. The individual denn's Biomarkt stores have an own quality management system, granting the customers purchase security. The products can exclusively be purchased at the denn's Biomarkt stores and the company pays attention to keeping them affordable. (cf. denns-biomarkt.at, «NEU denn's Bio-Produkte»)

denn's Biomarkt wants to be an opportunity for smaller organic farmers and suppliers, as the company believes, they make an important contribution to the Austrian culinary culture and protect biodiversity. (cf. denns-biomarkt.at, «GREEN BRAND. denn's Biomarkt erneut als GREEN BRAND Austria ausgezeichnet»)

For reaching their objectives, denn's Biomarkt received the GREEN BRAND quality seal for the third time in 2017. The international seal is accredited to companies with an ecological and sustainable work procedure, denn's Biomarkt was awarded the quality seal for commitments in the domains of climate protection, sustainability and ecology. (cf. dennsbiomarkt.at, «GREEN BRAND, denn's Biomarkt erneut als GREEN BRAND Austria ausgezeichnet») Through their objective of promoting sustainability and consequently protecting the environment the activity of saving food becomes a logical procedure for them, as explained by dennree in a survey about saving food at the denn's Biomarkt stores.

Finally, the work of the Austrian Ministery for sustainability and tourism as an important actor in the Viennese food saving movement, can be described.

#### 7.3 The Austrian government

## 7.3.1 Governance for waste reduction and saving food

The Austrian Ministery for sustainability and tourism is also called the Ministery for an Austria worth inhabiting. In context of waste reduction and conscious consumption, it wants to help society to make conscious buying decisions, reduce waste and venerate regional products. Thus, it provides information for the individual private person on best practices in the different areas around food provision and consumption on its website. (cf. bmnt.gv.at, "Was kann der/die Einzelne tun")

The objective of the Ministery's campaign «Lebensmittel sind kostbar», food is precious in English, is the sustainable prevention of food waste and its reduction in general. To reach constant results, the Ministery seeks close cooperation with commercial representatives, consumers, municipalities and social institutions. (cf. bmnt.gv.at, "Gemeinsam gegen Lebensmittelverschwendung")

#### 7.3.2 «Lebensmittel sind kostbar» initiative

Currently, 157'000 tons of packed and unpacked food as well as leftovers are wasted on a yearly basis in Austria, down the entire food supply chain from harvests and transport to storage and processing and finally consumption. At the household level, around 300 euros of food products are disposed of yearly. A diligent treatment of food is needed, not only because of economic, but also because of ethical and social reasons.

Among the initiative's aims thus is awareness raising for the food waste subject and the sensitization of society. The subject should get a permanent and prominent position on the political and societal agenda, with the initiative being a platform and a linking brand. Moreover, economic processes and systems fostering a sustainable food waste reduction, shall be supported, as well as, projects for the passing on of surplus products to people in need and social institutions. To motivate action taking, outstanding ideas and projects shall be rewarded. (cf. bmnt.gv.at, "Die Initiative")

#### 7.3.3 The Viktualia Award

Since the year 2013, outstanding projects are granted the Viktualia Award by the Austrian Ministery for sustainability and tourism. They can be submitted in different categories: commerce, agriculture and regional production, gastronomy and canteen kitchen, School-and Youth projects, Highschool and Youth, social initiatives and projects and private commitment. (cf. bmnt.gv.at, "Viktualia 2013- Auszeichnung für beste Projekte")

Projects central to this master's thesis also won the Viktualia Award, that has already become popular with actors interested in food saving, society and environment. In 2014, for example, REWE International AG, also official partner of the «Lebensmittel sind kostbar» campaign, won the award in the commerce category for its «Wunderlinge» project, that has already been introduced earlier (cf. bmnt.at, «Viktualia 2014- die besten Projekte»). In 2015, the foodsharing Austria association was rewarded for its project «Lebensmittel retten und teilen» (saving and sharing food) in the category private commitment (cf. bmnt.at, «Viktualia 2015- die besten Projekte») and in 2016, Verein StartUp won the Viktualia Award in the category social initiatives and projects with a project around its core activities called «Verein StartUp» (cf. bmnt.at, «Viktualia 2016- die besten Projekte»).

Besides the REWE International AG, the Austrian Ministery for sustainability and tourism gained a range of other commercial partners for its campaign and still seeks new cooperations.

#### 7.3.4 Becoming partners

The Ministery also managed becoming partners with all Austrian social partners, which there are the chambers of trade, labour and agriculture and the trade union federation. (cf. bmnt.gv.at, "Sozialpartner mit im Boot")

Further on, its focus lies on giving enterprises and organisations already taking action for food waste prevention and reduction the opportunity to cooperate. The options for cooperating hence are, for example, the use of the campaign's label, composed of a logo and a slogan, in the partners' internal and external communication. The Ministery on the other side will embed the partners' projects and respective activities in its «Lebensmittel sind kostbar» initiative website. Additionally, the Ministery and its partners can develop common

communication measures and the latter will be able to join stakeholder dialogues. (cf. bmnt.gv.at, "Partner werden")

The Ministery also gives consideration to school projects focusing on food waste reduction and having ecological and social ambitions. (cf. bmnt.gv.at, "Partner werden")

These cooperations between the Ministery and citizens, and also the formerly explained double movement between citizens and corporations, point to more unconventional forms of political participation at which a closer look shall be taken now.

#### 7.3.5 Various forms of political participation

De Nève and Olteanu investigate on more unconventional forms of political participation in their book *Politische Partizipation jenseits der Konventionen* (2013). They refer to Max Kaase (1987), defining political participation as taken actions and shown behaviours by citizens, organisations or other institutions with the intention to initiate or influence societal and political processes or to question existing structures and taken decisions (cf. De Nève/Olteanu, 2013: 14). Jan W. Van Deth also summarizes four important characteristics of political participation in his essay «A conceptual map of political participation» (cf. Van Deth, 2014: 351-352), partially reaffirming this definition. Consensus seems to be found for the activity character of political participation, it then is attributed to citizens in contrast to politicians or professional lobbyists, it should be voluntary and it «deals with government, politics or the state in a broad sense of these words ('political system', 'policy process')» (Van Deth, 2014: 352). In this, «it is neither restricted to specific phases (such as policy making, or the input side of the political system) nor to specific levels or areas (such as national elections or contacts with public representatives and officials)» (idem). (cf. Van Deth, 2014: 351-352)

A relevant difference can then be seen between conventional and unconventional forms of political participation. De Nève and Olteanu again refer to Max Kaase, describing conventional political participation as consisting of institutionalized political processes with a high level of legitimacy and usually being linked to elections and the electoral process. Unconventional political participation on the other side standing for non institutionalized participation, with a political aim. (cf. De Nève/ Olteanu, 2013: 15) It thereby depends on cultural, societal, social and political norms and processes if a certain form of participation is defined as being unconventional. Furthermore, participation denominated conventional in one situation can be perceived as unconventional in another situation and vice versa; this

perception can also change over time. (cf. De Nève/ Olteanu, 2013: 15) De Nève and Olteanu additionally distinguish legal and non legal unconventional participation forms, as well as unconventional participation forms included in political customs and traditions and those that are not. Saving food, as defined in this place, can probably be seen as a legal unconventional participation form, but not forming part of generally acknowledged political customs and traditions. (cf. De Nève/ Olteanu, 2013: 16) Even if not generally acknowledged, such forms can nonetheless be reinterpreted as political actions depending on the pursued aims (cf. idem: 283-285). In the present context, the generally pursued aim could probably be understood as showing alternatives to the rather prominent throwaway society and raising awareness for its consequences. Jan W. Van Deth consequently refers to Norris' more specific enlargement of the definition of political participation as «[...] activities [...] to impact civil society» (Van Deth, 2014: 352) or «to alter systematic patterns of social behaviours» (idem) (cf. Van Deth, 2014: 352). Van Deth also understands «political consumption, street parties or guerilla gardening» (Van Deth, 2014: 350) as actions that can be reinterpreted as political participation (cf. Van Deth, 2014: 350).

Stolle and Micheletti refer to Barnes and Kaase (1979), stating that such unconventional forms of political participation progressively became more apparent through the 1970s, attracting younger generations and citizens with «postmaterialist value orientations» (Stolle/ Micheletti, 2013: 34) (cf. Stolle/ Micheletti, 2013: 34). As described by Inglehart (1997), these participation forms «had [...] systematically increased and spread through the populations of Western democracies by the mid 1990s» (Stolle/ Micheletti, 2013: 34) (cf. Stolle/ Micheletti, 2013: 34). Dietlind Stolle and Marc Hooghe, as well as Ronald Inglehart and Christian Welzel observed in 2005, that «by the end of the twentieth century, various action repertoires, particularly protests, the signing of petitions and to a certain extent boycotts [...] have become mainstream tools for citizens to express their political stances and opinions» (Stolle/ Micheletti, 2013: 34) (cf. Stolle/ Micheletti, 2013: 34).

New social movements that, as noticed before, became most of all relevant from the late 1960s and unconventional forms of political participation that became more dominant from the 1970s seem to be mutually dependent.

Now the work procedures, objectives, food saving approaches and related initiatives of the, to this master's thesis central, food saving movement stakeholders have been illustrated and it has been explained how their food saving activities can be seen as political participation. Thus, the here central question of research what the possible advantages and disadvantages of food saving activities in supermarkets by specialized NGOs are, can be answered

# 8. Interview and questionnaire evaluation

#### 8.1.1 foodsharing Vienna

On behalf of foodsharing Vienna, Dagmar Haier explained that the NGO works with a cycle of so-called foodsavers, organized through a platform where they are able to enrol for food collections at different companies; like this, both sides are able to fix appointments. Foodsavers are able to plan their mission independently and to communicate among themselves. Before they are allowed to save food in this cycle they, for example, have to follow courses about health regulations and correct food storage. After having accomplished these courses successfully, they get a foodsaver's pass which they have to carry with them on their missions and present to the companies they collect food at. The frequency of arranged collections differs from company to company, they may ask for one collection a week or one collection a month. Often they ask for more regular collections to avoid even more food waste, as soon as they get used to the system. For the cooperation with some companies, the foodsavers have to prepare recipients and cutlery to pack passed on food on their own, for example, because the companies' original packages should not be seen in this process. They assume that making it visible to their consumers that food is wasted despite their sustainability ambitions, could be counterproductive. Some foodsavers do their collections with a bike trailer if a bigger quantity of products is announced. It may also happen, that they use a car if necessary, yet most of the time they should respect the ecological idea of the project. After picking up the to be saved products at a company, the foodsavers decide whether they keep the products for their own consumption, pass them on to their circle of acquaintances or bring them to a so-called Fairteiler. The Fairteiler are fridges positioned around Vienna in which saved food can be stored and consequently is available to everyone interested. This is particularly important to foodsharing Vienna, they don't want the saved products to be only available to people in need because they don't want to judge people first of all and don't think deciding who should be granted access to the Fairteiler and who shouldn't is any of their competencies.

Speaking of advantages and disadvantages the diversity of products that can be picked up at the denn's Biomarkt stores is an advantage to foodsharing Austria, as assortments at companies of another nature are often more monotonous. It is, for example, a more demanding task for foodsavers to consume and share bigger quantities of bakery products in their still consumable time, than to do the same with products from various departments that can be combined more easily. A disadvantage can be perceived in the necessity to accept all the products that are passed on by the companies. The overall advantage seems to be the waste reduction and ergo the saving of resources, which also is the main focus of their concept as already mentioned earlier. foodsharing Vienna also sees the revaluing of products that otherwise would be disposed of and would consequently lose their value, as an advantage. Therefore, they also perceive only participating in their activities to save money as the wrong approach.

## 8.1.2 Lebensmittelrettung Österreich

A completely different work procedure and working aim has been explained in the expert interview with Alexander Mühlhauser on behalf of the Lebensmittelrettung Österreich NGO. Their focus explicitly lies on making saved food available to people in need. They have a fleet with four refrigerated vans, driving food collection rounds every morning from Monday to Saturday, thus, on supermarket opening days. They will prepare banana crates to pack the passed on products and bring them first to a sorting area, where they are organized in commodity groups and where addled food is sorted out. As the supermarkets temporarely store all the otherwise discarded products for the collections, but it's not their task to do a preselection. Lebensmittelrettung Österreich doesn't want them to have even more work to tackle during their regular shifts. It is their objective to offer them a pick up service advantageous for both sides and most of all not to beg for products. The still consumable products are then kept in the warehouse for Lebensmittelrettung Österreich's grocery store. The best-before date can be exceeded up to ten days, whereas products whose consume by date has been reached, have to be consumed on the same day.

At the grocery store, people in need are able to buy the products at a better price. At their first visit, interested people have to bring their proof of income to get a membership card, people with minimum income, students and asylum seekers excepted. Lebensmittelrettung Österreich also considers everyone's individual story if somebody, for example, just lost her job or is a single parent. As Alexander Mühlhauser asks: «Wieso sollte

Essen weggeschmissen werden müssen, nur weil es zurückgehalten werden musste?», why should food be thrown away, just because it couldn't be passed on to somebody?

Currently, the income from the products sold at the grocery store provides surplus budget which, for example, makes infrastructure maintenance and reparations of the four vans possible. Unfortunately, it is impossible to pass on food for free within this concept, as members and others quickly lose respect. Lebensmittelrettung Österreich made the experiment and in the end, members of staff had to collect left-overs of surplus products in the streets. If the current profit continues to rise, Lebensmittelrettung Österreich will adapt product prices at the grocery store, members will then be able to save even more of their personal budget.

At Lebensmittelrettung Österreich, they insist on the fact, that there are no real disadvantages with their system. Alexander Mühlhauser also stated, that generally it is a «win-win-win» situation, as the supermarkets the NGO works with have less surplus products to deal with on their own and as already mentioned the NGO cares about offering them a professional service without begging for food. The NGO on its side has access to a diverse assortment of products. This diversity also is an advantage for the NGO's members, who consequently are provided with a wide range of still consumable products at a price they can afford. The diversity in products from supermarkets requires less effort from the NGO than the cooperation with smaller companies would require, to offer the same quality of service to people in need. Nonetheless Lebensmittelrettung Österreich works on expanding its coverage, motivating smaller companies to join the system.

They furthermore see their activities as an ecological and sustainable advantage even if not communicated in the first place. In context of their internet and social media presence, the idea of preventing resources from being wasted is more dominant than in context of their work for people in need. On their facebook page, their followers are regularly invited to pick up surplus products at their foodpoints. (https://de-de.facebook.com/lebensmittelrettung/) Aditionally, an app should become available soon, to make it easier to everyone to save food.

After the presentation of the NGO interview material, information gained in respective questionnaires about the supermarket companies' food saving work procedure and the meaning saving food and sustainability have for them shall be depicted.

#### 8.1.3 SPAR Holding AG's supermarkets

The supermarkets of the SPAR Holding AG work with hundreds of organisations picking up

surplus products that could not be sold. The only criterion for organisations to be eligible to contribute to the system, is regional availability. Then, the Holding prefers organisations passing saved food on to people in need, as it is important to them that consumers who would generally not be able to afford their supermarkets' products also have the opportunity to benefit from them. In this way, the social and the ecological characteristic of saving food are taken into account, otherwise only the ecological one would be considered.

In the first place, the supermarket area manager coordinates these organisations, as this post allows to get an overview of the different organisations active in the nearby field, and to become more experienced with the respective dynamics. Then, bigger organisations start coordinating work with smaller ones. It is noteworthy, that the amounts of passed on food are usually to small for social markets to pass by more than twice a week.

To pass on products that can't be sold anymore, members of staff have to tackle a small additional expenditure, to prepare them. They may also do a preselection of this assortment, because the company doesn't want to take any health risk. To the SPAR holding AG, it is very important in this context, that organisations are reliable and punctual doing their collections and that they work in a precise and clean way. Additionally, an agreement about the liability has to be signed by both sides, responsability for the products thus only lies on the organisations' side as soon as they have been picked up at the supermarkets.

It has to be noted, that for the SPAR Holding AG saving food is an all-round concept, as has also been shown earlier, with the description of their waste reduction efforts. The Holding's objective is of course always to sell as many products as possible before the sell-by date. Thus, to not only pass on products and in this way have an economic deficit, saving food is also linked to an ordering system saving information about consum, holidays and seasonal products with the aim to optimise orderings and avoid surplus stock.

Passing on products has already been an established procedure for years in food retailing and among the SPAR Holding AG's work procedure. Nonetheless, to inter alia meet new legal exigences, it had to get a more precisely structured framework quite recently. Furthermore, as together with discussions about sustainability it is a topical subject in society at the moment, even more focus has been layed on it. To retailers it had already become central due to an ever smaller margin in pricing and thus a more rapidly rising competition. The SPAR Holding AG states, that for them it also is an optimising attempt to reduce disposal costs and consequently restrain the price competition from this side of the food supply chain.

In terms of advantages and disadvantages of saving food in cooperation with organisations, they see the latter more in general and don't consider the difference between

organisations only saving food, as the ones in this master's thesis, and organisations working in various fields. As advantages, they mention the opportunity to meet the ethical directive as a company, the reduction of the quantity of waste and respective disposal costs. Whereas preparation of the surplus products for the collections is a disadvantage to them.

#### 8.1.4 REWE International AG's MERKUR supermarkets

The SPAR Holding AG's point of view being described, the REWE International AG's perspective, most of all with regard to their MERKUR supermarkets, can be specified. All the MERKUR supermarkets have already worked with charitable organisations for many years and also support them in different initiatives besides their usual food collections. They most of all opt for cooperation with well established and reliable organisations passing on surplus food to people in need; their aim here is to enhance equity. It is as well very relevant to them, that cooperating organisations ensure food collections on a regular basis.

Initiating this cooperation often is a challenge, as the supermarkets need available members of staff to prepare the products for food collections and sometimes they also help their partners to coordinate logistics if there are more important amounts of products that have to be transported. This happens, for example, in context of their cooperation with Caritas who pick up surplus products in the warehouse in Inzersdorf that were brought there by REWE, and not at the different chain stores.

REWE International AG explains, that «[d]as nachhaltige Engagement eines Unternehmens [...] immer als Gesamtpaket gesehen werden [muss] [...]», the sustainable commitment of a company always has to be perceived as an all-round concept. Thus, saving food by passing it on to organisations is one part of this concept. Their work procedure would lose credibility if they didn't take on sustainable responsibility; or in their words «[...] wir wären in unserer Tätigkeit unglaubwürdig, wenn wir diese Verantwortung nicht wahrnehmen würden». In this way, they are able to improve their image and assure their «'Licence to Operate'» in society because their customers are very sensitive to sustainability and food waste as they were able to observe on social media. At an assembly with their Customer Advisory Board, it was discussed that their efforts to support sustainability and people in need are highly appreciated by their customers, thus, they care about keeping up their work as a decrease of the latter could result in a loss of clientele.

Their sustainability concept inter alia includes late opening hours, like this, their customers don't need to buy more than they are able to consume within a few days, they don't

need a stock of products at home anymore. Thus, less products have to be disposed of in households. Additionally, they count on well planned orderings and coordinated logistics to reduce food waste in advance. Their own interest is also relevant in this place, as the disposal of products is a double burden: they paid for a product that couldn't be sold, consequently the initial value is lost and additionally they have to pay the disposal costs. Another strategy is to try to sell products by offering them at a better price shortly before the best-before date runs out.

With their earlier introduced «Wunderlinge» project, they not only made bigger quantities of fruit and vegetables at a better price available to their customers, they also gave a new opportunity to producers who formerly were not able to sell fruit and vegetables not meeting the aesthetic standard to the retail. On the producers' side, those fruit and vegetables that can't be sold because of their different shapes are also lost and thus, belong to the category of food waste. Generally, they see the «Wunderlinge» project as «klares Zeichen gegen die Wegwerfkultur», a clear symbol against the throwaway culture in industrialized societies.

Given the fact that, the REWE International AG cares about working closely with its customers, cooking workshops were also organised in cooperation with the Wiener Tafel in the kitchen of the MERKUR academy, to raise awareness for a sustainable and respectful handling of food. On these occasions, the participating professional cooks gave advice on how to avoid food waste at home. REWE in a further step also engaged in guerilla cooking in Vienna, by hiring the influencer Daria Daria.

As the SPAR Holding AG, the REWE International AG doesn't make a difference between organisations only specialized in saving food and organisations active in many fields. On one side, they see the possibility to take on societal and environmental responsibility as an advantage of saving food. Then, there are advantages on the economic side, saving food is as has now been explained beneficial to their image, which in turn means more profit as customers would want to do groceries at the REWE supermarkets, for example, the MERKUR chain stores. Moreover, by passing on surplus products to organisations, they can reduce the disposal costs. On the other side, they don't really go into detail about the disadvantages of the food saving procedure.

#### 8.1.5 dennree and denn's Biomarkt stores

Currently, the approach towards saving food by denn's Biomarkt remains to be described.

The denn's management at dennree states, that both sides of the cooperation are eager to make the food saving procedure as easy as possible for each other. At the moment, denn's Biomarkt stores only cooperate with foodsharing Vienna. Their system is able to work efficiently if the foodsavers generally keep their appointments and the store staff is familiarized with it. If these conditions are met, logistical problems can be solved more easily. dennree and denn's have an overall sustainable focus, nonetheless customers always expect a fresh assortment, thus, most of the products passed on to foodsharing Vienna are fruit and vegetables, as they can quickly go off.

Generally, volume planning is also an important step to avoid food waste at the denn's stores, products nearly reaching the best-before date will therefore be offered at better prices. Like this, the stores want to prevent the necessity of passing on food to get it saved.

It is a part of the denn's Biomarkt concept to communicate their cooperation with foodsharing to their customers. Currently, more and more of the latter become interested in the subject. denn's Biomarkt hopes that passing on respective information makes their customers rethink their consumption, because a lot of products are also disposed of at households.

To denn's Biomarkt, a clear advantage of saving food by passing it on to foodsharing is that they have an additional opportunity to avoid «Müllberge», so-called mountains of waste. The denn's Biomarkt management at dennree explains that «[d]er Biologische Anbau hat ja nicht nur den Gesundheitsaspekt, sondern auch einen ganz starken Umweltaspekt. Im Kern geht es darum mit den Ressourcen der Erde sorgsam umzugehen». Which means, that organic cultivation not only focuses on the health aspect, but also on the environmental one and that it is important to use resources carefully. At denn's Biomarkt, they also highly appreciate foodsharing Vienna's cooperation with the Wiener Tafel. A so-called FairTeiler fridge is positioned in front of a Wiener Tafel address, thus, people in need can also be provided with organic products which they wouldn't be able to afford otherwise.

It becomes clear, that some common to be interpreted knowledge can be gained from the convictions and principles of the interviewed organisations and consulted companies. As a next step, this knowledge can now be evaluated following Gläser and Laudel's method of qualitative content analysis (cf. Gläser/ Laudel, 2010: 229 ff); inter alia causalities of the different cases will be summarized.

#### 8.2 Discussion

## 8.2.1 Conditions, advantages and disadvantages of the described food saving activities

It seems as if the, for food saving activities needed framework, absolutely has to include the clarification of responsibility for the passed on products. This is one of the first conditions mentioned by SPAR, Lebensmittelrettung Österreich and foodsharing Vienna. Closely followed by logistical and organisational concerns around the food collections that have to be met, as indicated by all of the three supermarket companies. Concerns to which the interviewed organisations care to correspond to at their best.

Of course, their efforts also have to pay off, to make food saving activities efficient for them. As an advantage of saving food at supermarkets, both organisations notice the diversity of products. As could be understood from the interviews, this diversity makes work easier for people in charge and more interesting for NGO members and other beneficiaries.

Moreover, the economic factor of the food saving project at the same time brings about a condition and an advantage, most of all in the supermarkets' perspective. SPAR and MERKUR emphasized that they of course are economically working companies that live from selling products. Economic efficiency of food saving activities seems then to become a logical condition for them, to participate in these activities. As a quick reminder, for SPAR the relative advantage is seen in the possibility to optimize price margins, whereas for MERKUR the advantage lies in the reduction of waste costs and meeting their customers' expectations who consequently are willing to continue doing their grocery shopping at the MERKUR supermarkets. denn's Biomarkt also points out to the reduction of waste costs.

The economic and the ecological advantage are closely linked. For the three supermarket companies, the ecological advantage saving food involves by reducing the waste of resources, is one part of an ecological concept having inter alia also the aim to prevent costs.

Then, the ecological and the social advantages can be seen as interconnected. By their statements it is possible to understand, that to MERKUR, SPAR and Lebensmittelrettung Österreich the social advantage of saving food consisting in supporting people in need, is the most important aspect. They perceive the ecological advantage as automatically fulfilled with the social one. Whereas foodsharing Vienna focuses on the ecological advantage and the revaluing of food, that can involve social characteristics on a secondary level and denn's Biomarkt highly appreciates that the social advantage can be combined with the ecological one.

Before summarizing possible disadvantages it can be retained, that the food saving activities between the in this master's thesis analysed organisations and supermarket companies involve economic, social and ecological advantages.

The, in this place with food saving activities associated disadvantages are logistical ones. At the supermarket side, they consist in surplus work that has to be tackled during normal shifts and at the organisations' side, they consist in managerial challenges around different product quantities.

Considering the for this master's thesis collected information from both sides, it is possible to interpret that food saving activities by specialized organisations like foodsharing Vienna and Lebensmittelrettung Österreich at the supermarket level help completing the food saving network in general. They handle product quantities that would, for example, be too small for bigger organisations to pick them up at the supermarkets. Additionally, there is the possibility, that they help dealing with quantities that those organisations were not able to redistribute even if they don't want this practice to become routinized or one of their main focuses.

#### **II. Conclusion**

Eric Giménez and Annie Shattuck already stated in their 2011 essay «Food crises, food regimes and food movements: rumblings of reform or tides of transformation», that the progressive trend within the corporate food regime is probably the largest and fastest growing grassroot dynamics concerning food (cf. Giménez/ Shattuck, 2011: 124). It seems to be appropriate to acknowledge, that also today seven years later, the progressive trend is still expanding. In this master's thesis, the latter and the third corporate food regime in general have been more closely looked at through the theory of Robert Cox' Neogramscianism. The regime and with it, the in this work central entity of the supermarket, have been interpreted as being constituents of the international historic bloc (after Gramsci) adhering to finance capitalism, neoliberalism and the mode of mass production. Whereas, the idea arised to see the progressive trend and its agents as a reversed transformismo (after Gramsci) as it seems to make change within the corporate regime structure possible, without directly calling out for revolution.

One could perhaps affirm that the progressive trend is successful in its aims for change as the corporate world, so far seen as part of the international historic bloc, gains more and more interest in its activities, namely for example, food saving activities. Just as the reformist trend within the corporate food regime does, as organisations like the UN, for example, also efforts to work with **NGOs** of all kinds. (cf. NGO show Branch: http://csonet.org/index.php?menu=14) Progressive representatives increasingly seem to become important stakeholders, as can also inter alia be seen through the work of the wbcsd and the cgf, seeking exchange of ideas to find new sustainable business solutions for their members (cf. wbcsd.org, «We help your company scale up its impact») (cf. theconsumergoodsforum.com, «What we do/ stakeholder engagement. Partnerships that deliver»).

It was possible to observe, that a global new social movement concerned with food saving activities emerged within the progressive trend. From the for this master's thesis central literature one can, for example, deduce that food saving activities can most of all be influential onto hunger reduction on a regional level, whether they happen in developing or in developed countries and regions (cf. Munesue/ Masui/ Fushima, 2014; Rutten, 2013). With an interest in international influences, the FAO and the LEI Wageningen UR wrote a report with scenario analyses in 2015 concerning the reduction of FLW in the European Union and its potential impacts on sub-Saharan Africa (cf. FAO/ LEI, 2015). Observing impacts of

international influences on a regional scale or observing the impacts of actions taken in one region onto the same region (i.e. Rutten/ Verma: 2014, «The Impacts of Reducing Food Loss in Ghana») may make it easier to have an overview over related market mechanisms. As Munesue at al. already stated, market mechanisms have generally not enough been taken into account in the research conducted on FLW, yet they imply relevant consequences for FLW reduction outcomes. (cf. Munesue/ Masui/ Fushima, 2014: 46). Munesue at al. additionally notice, that not only in developing countries, but also in developed countries many citizens live below the poverty line and depend on food aid from charitable institutions (cf. idem: 60). Thus, one may suggest that it would also be interesting and relevant for social progress, to generally assess FLW reduction impacts (market mechanisms being considered) in regions and cities like Vienna, where the present case study took place.

As could be seen, the here central organisations foodsharing Austria and Lebensmittelrettung Österreich are specialized in food saving activities on a smaller scale than, for example, the Austrian food banks. Their advantage is, thus, that they are able to process smaller quantities of saved food and pass those on to smaller groups of people, in this way also reaching other target groups than bigger organisations. Hence, they have an influence on a short term hunger reduction in their so to say activity niche. foodsharing Austria also cooperates with smaller stores or single restaurants, and Lebensmittelrettung Österreich seeks to include smaller enterprises into its system in the near future, like this both organisations seem as well to complete the food saving network on a microlevel.

On a smaller scale it also seems to be easier to lead activities with other motivations than the predominant social and charitable one: foodsharing Austria on its side, for example, made the ecological perspective its main motivation.

Besides the, by the organisations explained advantage of a vast diversity of food commodities becoming available from supermarkets, one can also see an overall advantage in the organisations' possibility to connect with larger business through their work with the supermarkets. Their names may become better known in the local corporate world. The supermarkets on their side, are also able to reach different target groups than their usual customers while pursuing their charitable objective. This may give their image an additional asset and make them attractive to a new clientele and new partners. Which seems to be vital to economically working companies, as they descibed themselves.

Still, Martine Rutten's essay «What economic theory tells us about the impacts of reducing food losses and/ or waste: implications for research, policy and practice» (2013) shows, that market mechanisms most of the time scale down initial FLW reduction results and

Shafiee-Jod and Cai explain, that on an international scale, FLW reduction can rather be seen as a complementary solution. They also mention yield increase and dietary shifts as possible solutions to combine FLW reduction with. It could consequently be interesting to systematically include those solutions into studies and scenario analyses about FLW reduction, as has already been done for a dietary shift by Rutten at al. in «Reducing Food Waste by Households and in Retail in the EU: A Prioritisation Using Economic, Land Use and Food Security Impacts» (2013).

Research about food insecurity and hunger, as well as food aid plans constantly have to evolve with political, social and cultural change. Hence, organisations like the FAO specialized in food related subjects and issues steadily have to weigh up the urgency of the latter. The, to this master's thesis most of all relevant, FAO State of Food Insecurity in the World Report of 2015 was dedicated to the present main subject of FLW with regard to hunger. In 2016, the report most of all focused on climate change, agriculture and food security. A subject area that can be seen as being interweaved with FLW, sustainability and climate change also playing a role in the waste issue.

More considerable change can be perceived with the State of Food Security and Nutrition in the World Report of 2017, marking «the start of a new era in monitoring progress towards achieving world without hunger and malnutrition» (FAO/IFAD/UNICEF/WFP/WHO, 2017: 3). The UN 2030 Agenda for Sustainable Development uniting «hunger, food security, nutrition and sustainable agriculture under a single objective, compelling the international community to move towards an understanding of how they are interrelated and promoting integrated policy approaches and actions» (idem: 3) (cf. FAO/IFAD/UNICEF/WFP/WHO, 2017: 3). Additionally, the report 2017 is devoted to the subject area of food insecurity and conflict as «[a]fter a prolonged decline, world hunger appears to be on the rise again[,] [t]he estimated number of undernourished people increased to 815 million in 2016» (FAO/IFAD/UNICEF/WFP/WHO, 2017: 1). The majority of 489 million of the latter «[...] liv[ing] in countries struggling with conflict, violence and fragility, where the prevalence of undernourishment is higher than in countries not affected by conflict» (idem: 30). In general, «countries affected by conflict [...] made the least progress in reducing hunger among their populations [...]» (idem: 37) pursuing the aim of achieving the «Millenium Development Goal (MDG) target of reducing by half the proportion of people who suffer from hunger [...]» (idem), the target's monitoring period having ended in 2015 (cf. FAO/IFAD/UNICEF/WFP/WHO, 2017: 37).

To conclude, one may perceive FLW reduction efforts as a very small contribution towards the goal of hunger reduction on the side of the sustainable imperatives, henceforth standing side by side with conflict settling measures as suggested by the FAO, IFAD, UNICEF, WFP and WHO in their joint 2017 report additionally entitled «Building Resilience for Peace and Food Security». They may nonetheless be a good starting point for societies enjoying the luxury of peace to help themselves and the future generation in improving their living conditions.

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#### IV. Appendix 1:



# Lebensmittelrettung Österreich

Hernalser Hauptstraße 116 1170 Wien

www.lebensmittelrettung.at office@lebensmittelrettung.at f/lebensmittelrettung 0676/34 18 0 28

# Geben Sie Ihren unverkäuflichen Lebensmitteln eine zweite Chance. Ein Anruf genügt!

Wir haben im Bereich Lebensmittelretten ein neues Zeitalter eingeläutet. Für uns bedeutet Lebensmittel zu retten, Waren, die zwar für den Handel unverkäuflich, aber noch genießbar sind, eine zweite Chance zu geben.

- Überschrittenes oder unwirtschaftlich nahes MHD
- Beschädigte Verpackungen / transportbeschädigte Ware
- unverkäufliche Restposten / Saisonware

Wir distanzieren uns von dem bisherigen, sozialen "Betteltum" und bieten stattdessen eine professionelle Dienstleistung zum Vorteil für unsere Kooperationspartner an.

- Weniger Entsorgungskosten
- Weniger Arbeitsaufwand für Ihre Mitarbeiter
- Verbesserung des sozialen Images

Unser Vorteil ist, wir können unseren mittlerweile rund 6000 Mitgliedern eine Grundversorgung an Nahrung zur Verfügung stellen, die sie sich sonst keinesfalls leisten könnten. Darüber hinaus unterstützen wir mehrere soziale Einrichtungen für Obdachlose und Klöster mit Lebensmittellieferungen.

# Eine WIN-WIN-WIN-Situation für alle Beteiligten!





Mit unserem derzeit aus vier LKW bestehenden Fuhrpark holen wir bei unseren Kooperationsparntern in vorher vereinbarten Intervallen ab. Aber auch spontane, einmalige Abholungen führen wir gern schnell und professionell durch. Ein kurzer Anruf genügt.

Mit Kühlfahrzeugen, Kühl- und Tiefkühlmöglichkeiten, geeigneten Transportbehältern und geschulten Mitarbeitern gewährleisten wir die Einhaltung der Kühlkette und einen makellosen Ablauf.

Offizieller Partner von:









# V. Appendix 2:

# Evaluation tables organisations

	Lebensmittelrettung Österreich	Foodsaving Vienna
Conditions for food saving activities	- clarification of responsability for passed on products - reliability	- clarification of responsability for passed on products - presentation of food saver's pass -reliability
Preparation of food saving activities	<ul><li>four refrigerated vans</li><li>picking up of banana crates</li></ul>	<ul> <li>courses about health regulations and correct food storage</li> <li>sometimes preparation of recipients and cutlery</li> <li>bike with trailer or car</li> </ul>
Functioning of collections	- food collection rounds every morning Mo-Sa - max. four collections a week	<ul> <li>cycle of foodsavers organized through platform</li> <li>independent work</li> <li>one or more collections a month/week at a company</li> </ul>
Differences in do's and don'ts		- sometimes the companies' original packages should not be seen - if foodsavers are only allowed after general working hours, they have to work under high time pressure
Working procedure after collection	<ul> <li>organizing products in commodity groups</li> <li>sorting out addled food</li> <li>storing products in warehouse and bring to own grocery store</li> </ul>	- Foodsavers' decision: keep products, pass them on, store them in Fairteilers

Advantages and disadvantages	- advantages: diversity of products for members, less effort for the NGO, ecological, sustainable, «win-win-win» -no real disadvantages	products, waste reduction,
Motivation	<ul> <li>available food for people in need, at better price</li> <li>offer pick up service to supermarkets advantageous to both sides</li> </ul>	-revaluing food and ressources

# **Evaluation tables supermarkets**

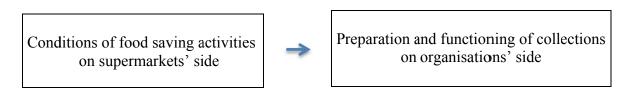
	SPAR	MERKUR	denn's
Conditions for food saving activities	<ul> <li>regional availability</li> <li>reliability, punctuality</li> <li>and clean working</li> <li>clarification of responsability for passed on products</li> <li>charitable character</li> </ul>	<ul> <li>reliable and well established organisations</li> <li>regularity</li> <li>charitable character</li> </ul>	- reliability and punctuality concerning agreed upon collection days and times - charitable character is an asset
Challenges of food saving activities	<ul> <li>no real challenges,</li> <li>has become a matter of routine</li> <li>small additional expenditure for staff</li> </ul>	- making staff available to prepare products and to help with logistics	- logistical challenges before they become routinized
Related work procedure	- preselection of to be passed on products - coordination of organisations by supermarket area manager	- late opening hours, so that as many products as possible are sold, and customers don't need a stock at home - warehouse outside the city, i.e for cooperation with Caritas	<ul> <li>verification of the to</li> <li>be passed on</li> <li>products</li> <li>making products</li> <li>ready for collections</li> </ul>

Meaning of food saving activities to supermarkets	<ul> <li>part of an all around sustainability concept</li> <li>economical optimising attempt</li> <li>opportunity to meet ethical directive</li> </ul>	-sustainable commitment of a company always is part of an all around concept, otherwise loss of credibility and clientele	- logical consequence of working with organic agriculture and production: importance of environmental aspect
Influence of food saving activities upon other areas of work	- no direct influences, every area has its own sustainability parameters	- no direct influences every area has its own sustainability parameters - i.e. ordering system, saving non sold products and well coordinated logistics -«Wunderlinge» project and workshops	- no direct influence - additional work at the end of the work process, besides selling products at better price
Mostly saved product groups	<ul><li>bread and bakery products</li><li>dairy products</li><li>seasonal goods</li><li>fruit and vegetables</li></ul>	- bread and bakery products - fruit and vegetables	- fruit and vegetables
Parameters of the cooperation between supermarkets and organizations	- organisations have to coordinate themselves with others, only in the beginning supermarkets' task	- discussed and agreed on with customers	<ul> <li>only cooperation</li> <li>with Foodsharing</li> <li>Vienna</li> <li>communication</li> <li>towards customers, to</li> <li>catch/ support their</li> <li>interest</li> </ul>
Advantages and disadvantages	advantage: - waste and cost reduction - possibility to follow ethical directive  disadvantage: small additional expenditure	advantage: -opportunity to improve image -possibility to take on societal and environmental responsibility - economical optimization	advantage: - waste reduction: «keine Müllberge» small disadvantage: - more work

Motivation	of profit, as margins are getting ever smaller - social: making	sustainable commitment appreciated by customers hedges and enhances purchases - social: distributive	- ecological: one of the main focuses while working with
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# Causal connections:

a)



economic motivation

social and ecological motivation

image improvement

seems to have influence back onto purchases

# VI. Appendix 3:

# Guidelines of semi-structured expert interviews

#### a) Interview guidelines for Foodsharing Vienna

- 1. Wie verläuft grundsätzlich ein Einsatz bei dem Sie Lebensmittel in einem Supermarkt abholen?
- 2. Wie bereiten die jeweiligen Foodsaver sich auf einen solchen Einsatz vor?

#### added questions if subject not already mentioned by interviewee:

- 2.1. Wieviel Zeit müssen die Foodsaver ungefähr für einen solchen Einsatz einplanen?
- 2.2. Erfahren die Foodsaver im Voraus, welche Art Lebensmittel abzuholen ist?
- 2.3. Wie oft kommen die Foodsaver zum Einsatz?
- 3. Welche Art PartnerInnen haben Sie? Mit welchen Supermärkten arbeiten Sie zusammen?
- 4. Gibt es bei den verschiedenen PartnerInnen, insbesondere bei den Supermärkten, Unterschiedliches zu beachten? Wie beispielsweise verschiedene Regeln, do's and dont's?
- 5. War es und ist es eine große Herausforderung, die PartnerInnen vom Konzept der Lebensmittelrettung zu überzeugen und zur Kooperation zu bewegen?
- 6. Mit welchen PartnerInnen ist die Zusammenarbeit am vorteilhaftesten und wieso?
- 7. Wie populär ist das Konzept in der Zivilbevölkerung, gibt es viele Anfragen um Foodsaver zu werden? Welche ist die Motivation?
- 8. Welche sind die nächsten Schritte nach einer Abholung?
- 9. Welche Art Lebensmittel holen die Foodsaver am meisten ab, welche weniger?
- 10. Gibt es Problematiken und/ oder Barrieren, die immer wieder auftreten?
- 11. Welche sind die Vor-und Nachteile der Lebensmittelrettung?

# b) Interview guidelines for Lebensmittelrettung Österreich

- 1. Wie bereiten Sie sich auf die Lebensmittelrettung vor?
- 2. Wie verläuft grundsätzlich ein Einsatz bei dem Sie Lebensmittel in einem Supermarkt abholen?

#### added questions if subject not already mentioned by interviewee:

2.1 Wieviel Zeit müssen Sie ungefähr für einen solchen Einsatz einplanen? Und wieviele MitarbeiterInnen?

- 2.2 Erfahren Sie im Voraus, welche Art Lebensmittel abzuholen ist?
- 2.3 Wie oft kommen Sie zum Einsatz?
- 3. Gibt es bei den jeweiligen Supermärkten Unterschiedliches zu beachten? Wie beispielsweise verschiedene Regeln, do's and dont's?
- 4. Welche sind die nächsten Schritte, wenn Sie die Lebensmittel abgeholt haben?
- 5. Welche Lebensmittel holen Sie am meisten ab, welche eher weniger?
- 6. Wie groß ist derzeit die Nachfrage für gerettete Lebensmittel?

#### added questions if subject not already mentioned by interviewee:

- 6.1. Gibt es einen beständigen AbnehmerInnenstamm?
- 6.2. Gibt es mehr Nachfrage für einige Lebensmittel als für andere?
- 7. Gibt es Problematiken, die Ihnen immer wieder begegnen, die Sie als störend empfinden? Oder verbesserungsfähige Schwachstellen?
- 8. Welche Vorteile hat diese Kooperation mit den Supermärkten für Organisationen wie Sie? Und welche Nachteile gibt es?

# Supermarket questionnaires

- 1. Unter welchen Bedingungen nehmen Sie an der Lebensmittelrettung teil? Wie muss diese ablaufen, damit sie für Sie als Supermarkt gut funktioniert?
- 2. War es eine große Herausforderung mit der Lebensmittelrettung anzufangen?
- 3. Was bedeutet die Lebensmittelrettung für Sie als Supermarkt?
- 4. Macht die Lebensmittelrettung weitere Abläufe in den verschiedenen Arbeitsbereichen des Supermarktes für Sie leichter? Beispielsweise den Einkauf bei GroßhändlerInnen?
- 5. Ist es zu diesem Zeitpunkt möglich Vor-und Nachteile der Lebensmittelrettung zu benennen?
- 6. Welche Lebensmittel geben Sie am meisten ab und aus welchen Gründen?
- 7. Wie ist es zur Zusammenarbeit mit der *Lebensmittelrettung Österreich* gekommen? Und was macht diese Zusammenarbeit besonders aus?
- 8. Arbeiten Sie noch mit anderen NGOs, die Lebensmittelrettung betreiben, oder planen Sie dies bald zu tun? Wie unterscheidet sich gegebenenfalls die Zusammenarbeit mit den verschiedenen Organisationen?
- 9. Gibt es Unterschiede zwischen den Spar- und den Interspar Filialen bezüglich der Lebensmittelrettung in Zusammenarbeit mit der *Lebensmittelrettung Österreich*?
- 10. Wie würden Sie die Zusammenarbeit zur Lebensmittelrettung in Wien (Österreich) im Vergleich zu jener in anderen Ländern in denen Sie tätig sind (Slowenien/ Italien), bewerten?

#### Added second round questions for Spar and Interspar:

- 1. Welche Unterschiede gibt es folglich zur Lebensmittelrettung wie sie vor der detaillierteren Strukturierung stattgefunden hat?
- 2. Inwiefern werden die Abläufe in anderen Arbeitsbereichen, z.B bei den Bestellungen nicht einfacher?
- 3. Wie werden so viele Organisationen koordiniert? Beispielsweise auch wenn die Mengen für die einen Organisationen zu klein und für andere vielleicht zu groß sind?
- 4. Viele Supermärkte arbeiten vor allem mit karitativen Organisationen zusammen, wo glauben Sie kommt dieser Fokus her? Da weitere Faktoren, wie beispielsweise das Ökologische ebenfalls relevant sind?

#### Added second round questions for MERKUR:

- 1. Macht es für die Supermärkte der REWE AG abgesehen von den Abfallkosten einen großen Unterschied, ob Lebensmittel schlussendlich gespendet oder weggeworfen werden?
- 2. Wie kommt es außerdem zu dem karitativen Fokus den Supermärkte meist haben? Es wird bevorzugt an Organisationen gespendet, die Lebensmittel an bedürftige Menschen weitergeben, allerdings sind die ökologische und die internationale Dimension der Ungleichverteilung der Lebensmittel ebenfalls relevant.
- 3. Wie offen kann man mit den KundInnen bei diesem Thema umgehen? Es gibt Vermutungen, es könnte KundInnen abschrecken, wenn auf der einen Seite von Nachhaltigkeit gesprochen wird, auf der anderen Seite aber klar wird, dass es Überschuss gibt, der kaum vermieden werden kann.
- 4. Schließlich wäre es interessant zu wissen, wie die Organisationen die Lebensmittel abholen, koordiniert werden können? Gibt es beispielsweise ein spezielles System?