



UiT The Arctic University of Norway

# Report on seafood, food law, and food waste

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## SUMMARY

The overall objective for the *Sjømat og rettssystemet* project is to develop a multidisciplinary task team with a core of interest in food law-related research, and with a focus on the seafood industry in Norway. This work is based on the work carried out during the workshop on “*Sjømat og rettssystemet*” (*Seafood and Food Law*), on December 6<sup>th</sup> 2019, at the Faculty of Law, UiT The Arctic University of Norway. It contains an analysis of the current challenges of the food systems with regard to the problem of food loss and waste. It aims to serve as a basis for the development of a collection of best practices and solutions to food loss and waste.

The analysis provides the state-of-the-art on the international, European and national legislation on food waste, as well as a description of the solutions provided to the food waste emergency in the seafood field in Norway. Based on the analysis, we conclude that each component (the legal and practical perspectives) is relevant to build up a common framework on the problem of food loss and waste in Norway and beyond.

## 1 Introduction

The overall objective for the *Sjømat og rettssystemet* project is to consolidate our multidisciplinary team and develop common project ideas with a core of interest in food law-related research, and with a focus on the seafood industry in Norway. This will be accomplished by collecting the best expertise in field of food law and food sciences and assessing the compliance of the best practices in preventing and curbing food waste with the legal provisions.

This report is a review of the work conducted during the workshop in December 2019 in Tromsø and contains an in-depth analysis of the best practices (legal and practical) and solutions to the food loss and waste problem. This report will serve as a basis for future project developments of our multidisciplinary team.

## 2 Aim

The aim of this report is to support the work on developing a multidisciplinary task team on food waste and loss in Norway, that can conduct food-related research and activities (which involve academia, institutions and practitioner from the food and seafood industry) and identifies problems and solutions to the current needs in the food sector. The team aims to conduct food related research and practical activities (among others: an elective course, a Zero Food Waste strategy for our Campus) employing interdisciplinary approaches, combining legal/theoretical analysis across social sciences (quantitative and qualitative social and economics research) but also across natural and social sciences (biology, human nutrition, food waste and public perception).

## 3 Workshop

In total, 18 participants from Norway, Italy, Finland and Kenya attended the workshop at UiT Norges arktiske universitet, on December 6<sup>th</sup>, 2019. The workshop was held both in English and in Norwegian and was divided into 4 main Sessions: I. Generell del: Introduksjon til rettsområdet; II. Inspill fra forskningsfeltet; III. Inspill fra praksisfeltet; IV. Spesiell del: Rettslige mekanismer for å sikre at marin ressurser ikke går til spille eller forringes som menneskeføde -Muligheter og begrensninger.

### Session I

The day was opened with a welcome introduction by Irene Vanja Dahl, Associate Professor at the Faculty of Law, UiT The Arctic University of Norway, and a keynote speech given by Margherita Paola Poto, senior researcher at the NCLOS The Norwegian Centre for the Law of the Sea, UiT). Poto observed how food law in the Western legal traditions tends to develop as a response to food crises. The trigger of the crisis is extremely important to initiate a conversation on an urgent topic that needs regulation but it has the drawbacks in the lack of systematic perspective and long-term regulatory planning. The history of the EU Food Law system was divided into two main epochs: the first, culminating at the end of 2000, where food hygiene and the protection of consumers' health were the highest concerns in the EU regulatory agenda. The manifesto of Food Law in the early years of 2000 (Reg. 178/2002) had

a couple of strong pillars: a tripartite distinction of actors (the ABC), designed for Authorities (EU, Member States and Food Safety Authorities), with controlling and sanctioning powers; containing provisions and obligations for the food Business operators (processing, producing, presenting); and having as its ultimate objective the protection of consumers' health (passive recipient of rights). Additionally, the system was redesigned around a linear way thinking, embodied in the Food Supply Chain, where food quality and safety is to be granted from farm to fork, and where resources are extracted from land and sea and disposed of on the tables of the consumers. The second series of crises (first the financial crisis in 2008-2009, whose impacts rippled out in unpredictable ways on food prices, that led to land grabs in Africa, Asia and South America and ultimately worsened the environmental, societal and economic crises) compelled scholars, institutions, food business operators to think in a different way, in terms of circular supply chains and more in general to think how interconnected the food system is. The presentation ended with some reflections on the need to engage in conversations connected to Food Waste by adopting an interconnected system of thinking, with the involvement of all the actors of the food system: researchers, public institutions and private stakeholders.

Presentations from an international and European perspective followed the introductory speech. Jane Murungi, from the Åbo Akademi University, Turku-University of Nairobi-Kenya focused on the global framework on the definitions of Food Loss and Waste (FLW). After the introductory explanation, participants were divided into groups and given the same set of photos of various food items, and the task was to provide a definition of such food, under the categories of food loss or food waste. At each group many items were sorted into categories without major disagreements, but for some items there were differences in opinion and Murungi summed up the discussion providing insights on the correct answers.

Difficulties and solutions related to the regulation of food Waste in Europe and in several European States (Italy, France and the United Kingdom – in the then ante-Brexit regime) were prospected by Valentina De Gregorio, Migrant Network Communications Manager, Slow Food, Italy. As overarching principles for tackling and regulating food waste and loss, Valentina suggested to adopt a rights-based approach, but also to think critically at the current solutions, pointing out how the current system has its drawback in triggering dependency on the food excess and aggravating the marginalization and sense of exclusion of a certain portion of society.

Lucia Polackova, Dr.jur., Ferrero S.r.l., Italy, joining the workshop via Skype, continued the conversation on the right to food and solution to food waste. She provided insights on the EU Law, French and Italian regulatory frameworks and an in-depth comparative analysis of the obligations related to food waste in the three legal orders.

## **Session II**

The second Session of the workshop focused on the solutions to FLW from the research field, with a first presentation from Paula Victoria Capodistrias, Project Leader of Matsentralen Norge, that bridged theory and practice and illustrated the mission, scope and activities of the Food Banks in Norway, at the forefront of the daily struggle to reduce food waste and over production. Matsentralen Norge is the umbrella organization for food waste prevention and reduction in Norway, that collects edible

food, stores and sorts it out, to redistribute it to people in need. By doing so, it strengthens vulnerable sections of society and provides effective solutions to food waste and its environmental impact.

Ana Karina Carvajal, Research Leader at SINTEF Ocean, Trondheim, Norway presented the preliminary results of a project of mapping volume and causes of food waste in the seafood industry in Norway, starting from a bio-economy integrated perspective, that looks at food waste in the seafood industry as a common challenge for science, business and society. Ana illustrated the background of the project, the different activities of mapping volume of seafood waste and its implications, by illustrating the differences of fish produced in Norway (pelagic fish, salmon and cod) and the data regarding its waste.

Edgar Henriksen, from Nofima, Tromsø identified the causes of seafood waste in the seasonability and overcapacity in the seafood industry. Overproduction of cod, for example had impacts on the quality and on the value creation; he emphasized the inadequacy of the current regulatory framework to effectively address the problem and the need to re-discuss and re-define some of the implementing measures.

Within the same concept idea of improving the value creation in the seafood supply chain, Runar Gjerp Solstad, from Nofima, Tromsø closed the second Session with a presentation on marine raw materials that does not qualify for human consumption and yet is a valuable resource in which the proportion utilized for increased value creation should increase.

### **Session III**

Following the tread of the challenges in the seafood production from research to practice, in Session III Gunn H. Knutsen, Fagsjef miljø og helse, Sjømat Norge, gave some important insights on the integrated framework of the seafood production in Norway, with a focus on the different actors engaged in the food supply chain, on the foundational principles in the seafood production, on the regulation at Eu and national level.

Hilde Herland, Quality coordinator at Lerøy Norway Seafoods AS (LNWS) and Kathrine Robertsen, Driftsleder in Lerøy Aurora illustrated the role played by Lerøy Aurora and LNWS in reducing food waste, in compliance with the agreement between Ministries and Unions of the food industry in Norway.

### **Session IV**

Session IV was dedicated to the illustration of the potentialities and challenges in the regulation of seafood waste, within the food regulatory system in Norway. Hans Peder Hvide Bang, Senior Food Advisor for the Landbruksdirektoratet, Oslo, gave a presentation on the content of the Norwegian Food Act, with a focus on the legal provisions specifically relevant to combating food waste (food presentation and labeling) and pointed out that the compliance with the food presentation requirements can exacerbate the food waste problem, in the delicate balance between ensuring food quality and curbing food waste.

Vidar Landmark, Ekspedisjonssjef, Oslo analysed in detail the Marine Resources Act, with a particular focus on the principles of managing wild living marine resources and the prohibition of discarding biological waste (respectively: § 7 and 15 of the law).

Gerd Kristoffersen, Legal counsel for Norges Råfisklag, Tromsø, illustrated the role of Norges Råfisklag as the representative organization of fishers in Norway and its coordinating role between fishers and authorities.

Halfdan Mellbye, Solicitor in Bergen provided further insights of legal provisions regarding seafood production and its regulation within the the Aquaculture Act.

In the concluding part, the group came to a common understanding of the importance of the focus on the food waste and loss.

The multidisciplinary team agreed on the need to continue the conversation around the challenges and solutions of food waste and seafood waste in Norway and on the importance to explore further the effects of food waste reduction.

## **4 New project ideas**

The workshop helped the team to come to a preliminary mapping of the current regulatory challenges, but also of best practices coming from the seafood sector in curbing and combating food waste.

The result of our workshop revealed the issue is of central importance not only for the experts in food and practitioners working in the food sector, but also for the University and the community itself. Here below a step-by-step process of our project ideas to fight food waste and develop meaningful solutions both on the research front and for the community.

### **PHASE I Consolidation of the Sjømat Group**

The team will be formed by the participants of the workshop and extended to our network of food experts. In our first meeting, we will plan the activities for 2020, which might include: 1. The mapping of the already existing research projects, courses and activities run at UiT that involve food-related issues and that where we could get and provide insights and contributions; 2. The arrangement of an event, in order to establish meaningful contacts with institutions and practice and gain knowledge on the next steps to develop a common strategy in food-related matters that involves academia, institutions and practice; 3. The identification and consolidation of research areas and priorities shared by the team members, for the development of a research project and exploring the opportunities of funding (external funding)

#### *Deliverables:*

Ia. a joint publication that forms the knowledge base for the development of best practices to curb food waste

Ib. the development of a primer/handbook that gathers a literature review, best practices, a legal framework and activities

## PHASE II Connecting academia and practice

As a result of the workshop of December, academics and practitioners from the seafood industry, agreed on the need for a shared knowledge based on the coordination between regulatory provisions and best practices in tackling food waste in the seafood sector. A second step in building bridges between academia and the seafood industry could consist in drafting a white paper describing the need for modelling, identifying gaps and technical solutions and sketching a roadmaps of the current challenges and future needs in the seafood industry.

### *Deliverable*

Ila A white paper on a model of best practices for curbing food waste in the seafood sector

## PHASE III Developing an elective course

The course could be structured into 5 to 10 classes, dedicated to studying, understanding and engaging with the Sustainable Development Goals and to co-creating opportunities to transform such study into action. We could group the goals under common areas (SGD 2, 3, 12, 13, 14 and 15) and develop an understanding of the interconnected themes and targets under such goals. In harmony with our strong commitment to limit the use of non-sustainable learning tools, we will try to provide only digital learning materials and restrict the use of paper to the minimum. This guide, thought and written for Canada, could be our primer: [http://mcic.ca/pdf/SDG\\_Primer\\_FINAL.pdf](http://mcic.ca/pdf/SDG_Primer_FINAL.pdf). The course will be formed by a theoretical and practical section. In the practical section, we will try to contribute to a strategy of a Zero Food Waste Campus (See Phase III).

### *Deliverables:*

IIIa. A syllabus containing literature review, activities and projects for the students

## PHASE IV Reducing food waste at UiT The Arctic University of Norway

This project phase will be preceded by a desk research that will provide an overview of the problem of food waste, followed by data collection (that should cover a period of a semester). For this latter, the students, supervised by the course leaders, will develop a form that will be handed out to the canteen and food facilities staff. The employees will note the food ordered for each occasion and the food that is actually consumed. Based on the collected data, we will assess how much food is effectively necessary for an average person in various situations (how much coffee/water/drinking for each coffee break; how much bread/soup is consumed for a lunch). We will then inform the staff that will have to order food on the effective quantities and create an “alert” (on the website used to order food) in case too much food is ordered. We will develop a strategy to connect the UiT canteens and food facilities (cafés, kiosks) with the food bank in town, to make sure that the food that is ordered in excess and not consumed is delivered to the food banks or donated to students.

### *Deliverables*

IVa Data collection on food waste at UiT



REFERENCES

*Reports:*

- EA, 2009. Diverting waste from landfill. Effectiveness of waste-management policies in the European Union. European Environment Agency Report No 7/2009. ISSN 1725 9177.  
<https://www.eea.europa.eu/publications/diverting-waste-from-landfill-effectiveness-of-waste-management-policies-in-the-european-union/download>, visited in December 2020
- FAO, 2013. Food Wastage Footprint. Full-cost accounting – Final report. Rome. Available at:  
<http://www.fao.org/3/a-i3991e.pdf>, visited in December 2020

*Articles:*

- Graham-Rowe, Ella, Jessop, Donna C and Sparks, Paul (2014) Identifying motivations and barriers to minimising household food waste. *Resources, Conservation and Recycling*, 84. pp. 15-23. ISSN 0921-3449. <https://doi.org/10.1016/j.resconrec.2013.12.005>
- Gustavsson, Jenny, Cederberg, Christel, Sonesson, Ulf, Meybeck, Andreas, 2011. The methodology of the FAO study: “Global Food Losses and Food Waste -extent, causes and prevention”- FAO, 2017, SIK report No. 857, available at: <https://www.diva-portal.org/smash/get/diva2:944159/FULLTEXT01.pdf>, last visited in December 2020.
- Parfitt, Julian, Mark Barthell and Sarah Macnaughton (2010). “Food waste within food supply chains: quantification and potential for change to 2050.” *Philosophical transactions of the Royal Society of London. Series B, Biological sciences* vol. 365, 1554 (2010): 3065-81.  
<https://doi.org/10.1098/rstb.2010.0126>
- Schanes, Karin, Karin Dobernig and Burcu Gözet (2018). Food waste matters - A systematic review of household food waste practices and their policy implications. In *Journal of Cleaner Production* 182 (2018) 978-991, <https://doi.org/10.1016/j.jclepro.2018.02.030>
- Southerton, Dale and Luke Yates (2014). Exploring Food Waste through the Lens of Social Practice Theories. In: Karin M. Ekstrom, editor(s). *Waste Management and Sustainable Consumption: Reflections on Consumer Waste*. London: Routledge; 2015. p. 133-149.
- Stenmarck, Åsa, Carl Jensen, Tom Quedsted and Graham Moates (2016). Estimates of European food waste levels. IVL Swedish Environmental Research Institute. Available at <https://edepot.wur.nl/378674>
- Van der Werf, Paul and Jason A. Gilliland (2017). A systematic review of food losses and food waste generation in developed countries. In *Waste and Resource Management* 170(2):1-12  
*Proceedings of the Institution of Civil Engineers - Waste and Resource Management* 2017 170:2, 66-77, <https://doi.org/10.1680/jwarm.16.00026>