



Nordic Council  
of Ministers

Policy Brief

# **PREVENTING FOOD WASTE**

– *better use of resources*

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**Nordic Council of Ministers**

**Nordens Hus**

**Ved Stranden 18**

**DK-1061 Copenhagen K**

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# Contents

07 Introduction

08 Key findings

**Primary production**

**Date labelling**

**Food redistribution**

15 Further recommendations

**Nordic political action**

**Nordic public-private partnerships**

19 Participants



PHOTO: SCANPIX/DK

# Introduction

**E**very year, more than 3.5 million tons of food are wasted in the Nordic countries. It is an economic, environmental and ethical problem. The waste represents lost value to consumers and has an unnecessary impact on the climate and nature. Preventing food waste is therefore in everyone's interest.

In 2015, global agreement was reached on a target to "halve per capita global food waste at the retail and consumer level, and reduce food losses along production and supply chains by 2030". This is one of the 17 Sustainable Development Goals that make up the UN Agenda 2030.

The prime ministers' Green Growth Initiative placed efforts to combat food waste high on the Nordic agenda in 2013. This policy brief includes key results and recommendations from a Nordic food waste project initiated under the Green Growth Initiative. The project has mapped current shortcomings, proposed models for future solutions and formulated policy recommendations for Nordic collaboration. One key finding is that combating food waste is not a simple task that can be resolved by a single stakeholder. Policy is important, but co-operation between policy-makers, civil society, business and research is crucial. The recommendations therefore not only target policy-makers, but also other important players in the food sector.

Within the framework of the project, three sub-projects were organised, with the following objectives:

1. Developing knowledge about food waste in primary production
2. Helping producers date-label food in a way that minimises waste
3. Promoting the safe and effective distribution of surplus food to people in need.

# Key findings

## Primary production

The sub-project on primary production resulted in the introduction and definition of the term "side flow" for food waste and production losses in primary production. The term refers to produce that was originally intended for human consumption but never entered the food chain. In other words, side flow consists of:

- primary products that were intended for human consumption (excluding therefore planned feed production for animals)
- the parts of primary products that were intended for human consumption (excluding therefore peels and bones).

The sub-project compared three different terms for food waste, developed by three different initiatives: side flow (introduced in this project); food waste (used by the EU project FUSIONS); and food losses and waste (FLW, used by the research institute WRI). Which of these terms is more appropriate in a given situation depends on the scope of the quantification. The new term side flow should be used when analysing flows of food waste and production losses in primary production from a food security perspective. Neither WRI nor FUSIONS take into account the rearing phase of animals or the growth phase of plants.

Various data-collection methods have been tested for selected products in line with this definition, and an initial attempt has been made to quantify food losses and waste in primary production in the Nordic countries.

The total side flow in primary production in the Nordic countries is estimated at around 0.8 million tonnes, with an additional 0.1 million tonnes from animal rearing. This corresponds to 3.2% and 0.5% of the total production of 24 million tonnes of edible primary products. However, there is a lack of data, and the existing data is subject to considerable uncertainty.

The results from the project can be used to help others quantify and identify measures to reduce losses in primary production.



## *Recommendations*

- Acknowledge losses/side flows in primary production
- Use the new term side flow to quantify and analyse the reasons for flows of food waste and production losses in primary production from a food security perspective
- Use more than one method to quantify side flow
- Focus on the food chain as a whole to reduce food waste within primary production. For example, retailers and consumers must acknowledge their role when food is wasted in primary production. For example, quality requirements in shops drive the food waste further down the value chain
- Promote innovation on the creation of new markets, management systems and flows to minimise food waste in primary production. A lot of waste is still edible, but does not meet the high quality standards further up the value chain
- Provide guidance to farmers on how to reduce losses/side flows
- Adopt a Nordic position in EU fora.

## Date labelling

The sub-project on date labelling focused on several issues: current food labelling legislation in four Nordic countries; differences in how food safety authorities interpret the legislation; providing guidance to businesses; and evaluating the impact on product lifespan in the food supply chain.

The results identify differences in the guidelines and how they are practised. The Nordic countries interpret legislation differently with regard to date labelling for different food products, i.e. "use by" or "best before" dates. Differences were observed between countries, but also between different brands of similar food products within each country. There were also major differences in terms of the shelf life of similar products, general storage temperatures and the use of packaging gas. To take minced beef as an example, there was less variation in the storage temperature in retail (4–5°C) in the four countries, but there was considerable variation in lifespan due the use of different packaging gas mixes. Gas packaging (low oxygen, high carbon dioxide) inhibits microorganisms and extends the lifespan of many foods.

A nudging experiment in a grocery store showed that reducing by 30% the price of products with 1–2 days left of shelf life led to a significant reduction of waste in a particular product category. This is a fairly simple, cheap and effective method of reducing food waste in retail.

The project recommends enhanced guidance for manufacturers, retailers and consumers. Prolonging the lifespan of the product also leads to a significant decrease in retail waste. The results show that the type of packaging gas and storage temperature are both of great importance for the lifespan of chilled food products. Consumer studies reveal a need for clearer and more easily accessible information on different labelling, storage temperature and product lifespan. Individual consumers also need guidance on how long products remain edible once the package has been opened.



PHOTO: FOEDEREBAANKEN.DK

## Recommendations

- "Use by" labelling should only be used when necessary
- Enhanced guidance on "best practice" for manufacturers, retailers and consumers, e.g. concerning the lifespan of opened packages
- The Nordic countries should explore options for harmonising lower storage temperatures for perishable food products
- Date labelling of eggs should not be regulated separately
- All target groups must be informed that the type of packaging affects product lifespan.

**” Use-by labels should only be used when necessary**

## Food redistribution

The sub-project on food redistribution involved foodbanks, NGOs, businesses and authorities. Its key findings are that food redistribution can play an important role in reducing waste, and have a direct positive value for people in social need. However, the lack of stable long-term funding for foodbanks remains a significant obstacle in all of the Nordic countries.

The key recommendations are aimed at stakeholders who are – or ought to be – involved in redistribution, i.e. donors and agencies that are likely to help increase food redistribution while ensuring a high level of food safety. The recommendations include increased collaboration among all relevant stakeholders on developing the ability of national and regional foodbanks to act as systems operators for redistribution, both nationally and regionally. There is also a strong need to develop sustainable funding schemes for business models to realise redistribution's potential as a tool for waste reduction and to provide enhanced social security.

### *Recommendations for food providers (foodbanks & charities)*

- Act as platform/systems operators in the collaboration
- Develop national guidelines for redistribution, assessed and approved by authorities.



### *Recommendations for donors*

- Develop written guidelines for donations
- Make financial contributions to redistribution systems.

### *Recommendations for official agencies*

- Prioritise redistribution in the food-waste hierarchy
- Develop or assess guidelines for redistribution
- Consider different sustainable funding options for food redistribution.



PHOTO: FOEDEREAREBANKEN.DK

# Further recommendations

In addition to the detailed recommendations mentioned under the three sub-projects, certain general recommendations are also worth exploring further.



## Nordic political action

According to the Nordic Council of Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry's Co-operation Programme 2017–2020, the Nordic countries will increasingly take into account international interest (as expressed by organisations such as the FAO, OECD and EU) in the Region's work on sustainable management of natural resources and waste reduction in both production and consumption.

Food waste is high on the international agenda, as reflected in the UN goal to halve global food waste by 2030, which has inspired both national governments and international organisations to take initiatives in this area.

The European Union is emphasising the fight against food waste via their Circular Economy Package and the establishment of a platform on food losses and food waste.

By continuing its collaboration on food waste, the Nordic Region will play a leading role and present a strong Nordic voice and shared vision in the EU and other international forums. The results of the projects have already been integrated into the EU Platform on Food Losses and Food Waste. Representatives from the project have presented Nordic experiences, models and tools for reducing food waste to the EU.

## Recommendations at Nordic and national level

- Create a Nordic working group/network on food waste and resource efficiency in the food system that facilitates the sharing of good practices between the countries and contributes to Nordic initiatives
- Co-operate on integrating the work on food waste into national Agenda 2030 strategies
- Harmonise conditions for food distribution (e.g. storage temperature, packaging systems and date-labelling) in the Nordic countries, in order to prevent food waste and remove obstacles to a Nordic common market for food.

# SUSTAINABLE DEVELOPMENT GOALS



The Nordic Countries are in a strong position to influence international policy on food waste, e.g. by:

- co-operating on a Nordic agenda in the EU Platform on Food Losses and Food Waste
- maintaining a Nordic approach to EU legislation and recommendations (e.g. on eggs) in order to prevent food waste, and by using and promoting the findings from the food waste project
- using Nordic knowledge on reducing food waste to influence global discussions on sustainable food systems.



## **Nordic public-private partnerships**

In order to prevent food waste, in the Nordic countries and beyond, there is a need for increased and open collaboration between the public and private sector, and also between research and innovation organisations and official bodies. Via this open collaboration, the Nordic Region can act as a role model for the rest of Europe and the world. Efforts to reduce food waste should continue to build on public-private partnerships and negotiated agreements, where competing partners work with public agencies to develop new knowledge or methods.

Potential areas for public-private partnerships include:

- Promoting reduced food waste as a source of added value in Nordic food production
- Developing negotiated agreements as a model for co-operation between official agencies and the food sector, as an alternative to stricter regulations
- Knowledge-sharing throughout the food chain, e.g. recommendations on packaging (based on the findings of the date labelling project)
- Supporting innovation aimed at reducing food waste in all parts of the food system.

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**Nordic  
bioeconomy  
is about  
sustainable  
change**

# Participants

## STEERING GROUP

Ulla Nordström, Swedish National Food Agency (Chair), Sweden

Minna Huttunen, Finnish Ministry of Agriculture and Forestry, Finland

Cathrine Steinland, Ministry of Agriculture and Food, Norway

Zanne Dittlau, Danish Veterinary and Food Administration, Denmark

Karin Führ Lindqvist, Ministry for Enterprise and Innovation, Sweden

Christina Jonsson, Nordic Waste Group/Swedish Environmental Protection Agency, Sweden

Ingela Dahlin, Swedish National Food Agency (project secretary), Sweden

## SUBPROJECT PRIMARY PRODUCTION

*Project manager:*

Ulrika Franke, Swedish Board of Agriculture, Sweden

*Participating R&D organisations:*

LUKE (Finland), Østfoldforskning (Norway), Århus Universitet (Denmark)

## SUBPROJECT DATE LABELLING

Hanne Möller, Østfoldforskning

*Participating authorities:*

Danish Veterinary and Food Administration, Swedish National Food Agency, Norwegian Food Safety Authority, Finnish Ministry of Agriculture and Forestry/Evira

*Participating R&D organisations:*

DTU (Denmark), Luke (Finland), SP Food and Bioscience (Sweden), Nofima (Norway), PlanMiljø (Denmark), IVL (Sweden), Miljøkom/Mikom and

## SUBPROJECT REDISTRIBUTION OF FOOD

*Project manager:*

Ole Jørgen Hanssen with assistance from Irmelin Gram-Hanssen, Østfoldforskning

*Participating authorities:*

Danish Veterinary and Food Administration, Swedish National Food Agency, Norwegian Food Safety Authority, Finnish Ministry of Agriculture and Forestry/Evira

*Participating R&D organisations:*

Plan Miljø (Denmark), LUKE (Finland), IVL (Sweden), Østfoldforskning (Norway), Broad involvement of charity organisations and the Nordic food banks

## CONTACT

Mads Frederik Fischer-Møller, Nordic Council of Ministers, [madmol@norden.org](mailto:madmol@norden.org)

For more information please visit: [www.norden.org/newnordicfood](http://www.norden.org/newnordicfood)



Nordic Council of Ministers  
Nordens Hus  
Ved Stranden 18  
DK-1061 Copenhagen K  
[www.norden.org](http://www.norden.org)

### **PREVENTING FOOD WASTE – better use of resources**

“The Nordic Region – leading in green growth” is the prime ministers’ green growth initiative under the auspices of the Nordic Council of Ministers. A number of projects dealing with the circular economy have been launched as part of the prime ministers’ green growth initiative.

Reducing food waste in the Region is one of the areas covered. The projects have mapped current shortcomings, proposed models for future solutions, and formulated policy recommendations for Nordic collaboration. The results are expected to make a significant contribution to Nordic co-operation in the years to come and have attracted considerable international interest.

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