

SUSTAINABLE FOOD SYSTEMS: RESOURCE EFFICIENCY, FOOD LOSS AND FOOD WASTE

Tailored Course under the DFC Scholarship Programme



Learning Programme Dates

Online: November 2026 (estimated 6-8 hours)

On-site in Denmark: 30 November – 18 december 2026 (3 weeks)

Course Location

University of Copenhagen, Department of Food and Resource Economics, Copenhagen, Denmark

Introduction – Background of the Learning Programme

With one third of all food lost or wasted and nearly 800 million people across the globe going to bed hungry every night, food loss and waste is currently one of our biggest global challenges and

therefore calls for immediate action. Various scholars have indicated that 1,6 billion tons of food signifying a value of approximately 1,2 trillion USD are either lost or wasted equal to one-third of the total amount food produced. FAO estimates, that 14 per cent of food valued at an estimated 400 billion USD is lost between harvest and distribution.

The aim of the course is to present and discuss ways to increase resource efficiency and to reduce food loss and waste in the food value chain. Based on Danish experience the course participants have ideas and inputs to be used in their action plan for their own selected cases. The aim is that these plans are implemented in their own countries, and that specific plans for follow-up and control are presented.

Resource efficiency is about the organization and efficiency of the value chain - Does the value chain operate efficiently—with optimal integration, costs, market power, information flow, and quality control—to minimize waste and ensure sufficient productivity growth in agriculture and the food industry? **Food loss** is about how to limit waste, increase the utilization of raw materials, optimize the value in agriculture, in the supply industry and in the food industry. **Food waste** is about how to reduce waste in the value chain after processing in the food industry.

Denmark is a global role model for sustainable and resource efficient food production and innovation. Primary producers invest heavily in precision farming technology to minimize their environmental footprint and maximize their yield. Food producers constantly explore new ways to reduce their consumption of water, energy, ingredients and single-use plastic packaging.

During the three weeks stay in Denmark several exposure visits will be arranged to obtain an understanding of different stakeholders representing the entire food value chain from 'farm to fork'.

Target group

The course will target 25 participants. Participants must be related to the Danish Strategic Sector Cooperation (either directly or indirectly). The course is highly relevant for a diverse group of professionals with an interest in the food value chain, including academics working on food value chains and systems, food loss and food waste, as well as stakeholders from the private sector, universities and authorities at the administrative level. Participants are expected to have at least a bachelor's degree and be proficient in spoken and written English.

Learning goals

By the end of the course, the participants will be able to:

- Critically evaluate and understand the problems, drivers and challenges in relation to food value chains and systems, food loss and food waste
- Have knowledge and understand the function and benefits of efficient value chains in relation to the topic
- Understand the interaction and synergies from collaboration among different stakeholders in the food cluster in order to reduce food loss and waste.
- Use insights and tools from the course to develop and implement concrete action plans
- Apply and transfer knowledge and experiences from the course to their own context, for example by assessing relevant value chains in relation to food loss and food waste

- Communicate key insights and conclusions from the course to relevant stakeholders in their country and leverage the network established during the course for future collaboration

Learning Approach and Action Plan Development

Before the learning programme starts, the participants will be asked to share their reasons for joining the learning programme and what they wish to work on in the learning programme. The participants' expectations will be shared in class on the first day, and we will translate the expectations into a self-defined work *challenge*, which the participants will work on during the learning programme.

During the learning programme, class-room sessions will be supplemented by cases, exercises, field trips and practitioner insights. Participants' own knowledge and working experience will be brought into the learning programme in order to make the new knowledge and skills presented as direct applicable as possible. Peer learning will take place by identifying frameworks and opportunities for deployment of actions in their national context. These learnings will be presented and discussed among the participants.

During the last programme week, the participants will develop a brief presentation of their draft Action Plan and make a presentation to their peers and obtain their feedback to it. This purpose of this programme activity is to provide participants with a broad insight on different prerequisites in different countries.

Following the learning programme in Denmark, the participants will be encouraged to discuss their action plans in their organisations and to implement them, if feasible. Online follow up sessions will be arranged to evaluate how well it has worked to pass on knowledge to the participants' own organizations and if they have managed to implement their Action Plans or parts of it.

Tentative Programme

The course is divided in three sections of which the first and last section will be online

1. Introductory meeting and initiation of the local knowledge acquisition (recorded sessions and online meetings) over a three week period before arriving in Denmark,
2. A 3 week visit to Denmark to participate in-person in the Learning Programme
3. An online follow-up meeting after returning to your home country

WEEK 0 Online activities

- Introduction to the course and the action plan (self-paced).
- Efficiency, food loss and food waste: Understanding the concepts. Challenges and solutions.
- Action Plans: Results, challenges, experience, next step etc. Presenting final diary and all action plans (Online meeting).
- Introduction to the Human Rights Based Approach (self-paced).

WEEK 1: Course orientation and Danish Food System Insight	<ul style="list-style-type: none"> • Welcome by Head of Department. Presentation by participants. • Introduction to Denmark and to Danish agriculture. • Feed factory, advisory center and biogas plant. • Cooperatives and transaction costs. Competitive markets. Input from sector expert. • Group work. • Dialogue with sector experts from Ministry of Environment and Danish Veterinary and Food Administration. • The structure of food industry. Cooperative, value chain management and value chain efficiency. Stop food loss and waste initiatives
WEEK 2: Exposure visits	<ul style="list-style-type: none"> • Stop food loss and waste initiatives. Efficiency vs. food waste. • 3-4 days excursion to Zealand, Funen and Jutland: GASA Odense, Arla, Danish Crown, DLG, DAKA, Meat Inspection, dairy farm, agricultural and innovation knowledge center (SEGES) etc.
WEEK 3: Food System Transformation, Stakeholder Engagement, and Finalizing Action Plans	<ul style="list-style-type: none"> • Transformation of the food system. Technology and food waste reduction. Organization of value chains: Experience from Ghana • Conference about food loss and food waste (whole day) • Visit to IFU (Investment Fund for Developing Countries), European Environment Agency (EEA) and Ministry of Agriculture, Food and Fisheries • Preparing presentation of action plan. Catch-up on entire course. • Case presentations by participants discussions follow up and closing
Online activities after arrival in home country	<ul style="list-style-type: none"> • Revisit and discuss the action plan app. two months after the returning home.

Place of Study and Learning Programme Responsible

University of Copenhagen, Department of Food and Resource Economic, University of Copenhagen, Denmark

Senior Advisor, Ph.D. Henning Otte Hansen (hoh@ifro.ku.dk), University of Copenhagen: Henning Otte Hansen is a Senior Advisor at the Department of Food and Resource Economics (IFRO), University of Copenhagen, specializing in agribusiness economics, globalization and food markets, cooperatives, and food value chains. He holds a Ph.D. in Agricultural Policy and has extensive experience in research, teaching, and stakeholder engagement on food industry structure, market dynamics, and policy. Henning Otte Hansen also contributes widely through publications, external presentations, and advisory roles connecting academic insights with practical industry and policy challenges.

Staff of the Department of Food and Resource Economics), University of Copenhagen invited guests and speakers from other universities, organisations, Ministry of Agriculture, Food and Fisheries, private companies and farms.

What is Danida Fellowship Centre?

Danida Fellowship Centre (DFC) manages and implements the DFC Scholarship Programme, which provides learning opportunities in support of capacity building in Danish-supported development programmes and projects worldwide. DFC is responsible for the educational, administrative and logistical aspects of the learning programmes in Denmark, regionally and online. For more information, please refer to <https://dfcentre.com/>

How to Apply?

Please note that it is not possible to apply directly to DFC for this programme. Applications must be submitted through our [online application system \(SMA\)](#). Following the submission of your application, it will be reviewed and endorsed, if found relevant, by a Sector Counsellor or the respective Danish Embassy; the final selection of candidates for the learning programme will be carried out by DFC in collaboration with the Programme Manager.