



FELLOWSHIP SUMMARY REPORTS

OECD CO-OPERATIVE RESEARCH PROGRAMME: SUSTAINABLE AGRICULTURAL AND FOOD SYSTEMS

Cover page

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Host institute: Mediterranean Agronomic Institute of Montpellier (IAMM)

Project title: **Prioritizing sustainable food and repurposing food waste for human and planetary health**
OECD Theme: Strengthening Resilience in the Face of Multiple Risks in a Connected World (Theme 2)

The dates of your fellowship - 21 March, 2022- 1 July, 2022

Adjustments to earlier dates were needed to work around restrictions from the COVID-19 pandemic.

I consent to this report being posted on the Co-operative Research Programme's website. I also provided a short paragraph about this fellowship that could be used for promotion of this programme.

Project summary

To live within planetary boundaries, bright ideas, pioneering strategies, and actions are essential; yet encouraging the reduction of people's demand for energy and resources for shelter, mobility, and nutrition is complicated. The volume of food loss and waste (FLW) present major challenges for food systems sustainability. National governments and international organizations show concern about the interrelated issues of FLW, of global food system challenges, such as world population growth, change of dietary habits, energy intensity of agro-food systems, and food supply vulnerability due to climate change and the extensive pressures imposed on natural resources consumption, environmental pollution, and GHG emissions, ecosystem resilience, and biodiversity loss (Vittuari et al., 2019). Additional forms of waste in food systems are noted in the overconsumption of calories and the inefficiencies in producing food for human consumption from the volume of inputs to animal agriculture. Since the early 1970s, the number of obese people has been on the rise in Western countries, impacting negatively on food and public health systems (Di Cesare et al., 2016). Against this background, we convened a workshop on 08 June 2022 at the CIHEAM-IAMM of Montpellier. Roundtable participants presented thought-provoking ideas and concerns that could help direct research and research funding on strategies that prevent the waste of food. The roundtable addressed key questions on identifying causes and creative ways to communicate prevention of waste with households and influencers.





1. What were the objectives of the research project? Why is the research project important?

Investigating food waste prevention is important to increase engagement in the circular economy and reduce and repurpose food waste. This work builds on current priorities in the EU Green Deal Farm to Fork Strategy and the Sustainable Development Goals (SDG). Food systems play a double-edged role in climate change—drive destructive changes in our climate and biodiversity, while being vulnerable to an array of impacts arising from climate change: droughts, floods, destabilized weather patterns, rising temperatures, and volatility in rains. Valuing unavoidable local food supply chain wastes, and channelling food value chains into a circular economy (Sadhukhan et al., 2020) are important actions for reducing global warming and increasing food security.

Project objectives:

- a) Reviewing literature on ways to communicate about the need to prevent food waste.
- b) Identifying approaches that incentivize reduction and re-use of food waste
- c) Identifying practices that inspire transitions to lower carbon, higher nutrient foods
- d) Gathering local experts to offer insights on ways to reduce food loss and waste that can contribute to preventing further GHG
- e) Identifying approaches to inter-disciplinarity that demonstrate value-addition and bolster resiliency
- f) Collaborating on the production of a report or journal article on the importance of reduction in food waste and improving food systems.

2. Were the objectives of the fellowship achieved?

Many of the objectives have been achieved. We have reviewed literature and convened a group of experts. We are on the way to revising and co-publishing the findings. As was expected, the data are still being analysed. Fewer participants were able to join the roundtable of experts due Covid fears and prevalence.

3. What were the major achievements of the fellowship? (up to three)

- a) The biggest accomplishment for this researcher, was the expansion of my network of agri-food research through IAMM leadership.
- b) Connections with SupAgro, WUR, INRAE, OECD, will lend themselves to further research projects and opportunities for graduate students through expanding our networks.
- c) Offering workable ideas for food waste prevention would be the most desired achievement. We hope the publication to arise from this work may influence communication strategies that reduce food waste.

4. Will there be any follow-up work?

Collaboration on publication is envisaged. Our workshop and follow up co-authoring is anticipated to produce a journal article for publication likely early in 2023.

Through the relationships that have been built by harnessing the Montpellier network of agri-food research and IAMM leadership, we investigated communication strategies for preventing waste in households and for channelling food waste by-products into co-products and foods for humans.

Collaborations have developed with researchers in France, Netherlands, Turkey, Norway, and Italy and may lead to more work on food waste prevention.

5. How might the results of your research project be important for helping develop regional, national or international agro-food, fisheries or forestry policies and, or practices, or be beneficial for society?

As food waste is one of the leading contributors to methane emissions and global warming, curtailing this activity holds great potential for environmental benefits. As SDG notes: /food security/food safety/economic/health (human and livestock and plant) benefits, etc.

6. How was this research relevant to:





- The objectives of the CRP?

We anticipate that devising tools and messages to prevent food waste, may play a role in strengthening resilience, reduce global warming, and reduce the compounding risks in our inter-connected world.

7. Satisfaction

- Did your fellowship conform to your expectations?
Yes
- Will the OECD Co-operative Research Programme fellowship increase directly or indirectly your career opportunities? Please specify.
 - This opportunity was valuable for my research, my network, and my career. I suspect it will aid in my colleagues further appreciating my contributions as I apply for full professor.
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- Did you encounter any practical problems?
 - No significant problems aside from the obvious and ubiquitous issues with Covid-19
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- Please suggest any improvements in the Fellowship Programme.
It would be interesting also to be connected with other OECD fellows during the research window

8. Advertising the Co-operative Research Programme

- How did you learn about the Co-operative Research Programme?
 - I receive newsletters from my work with OECD and took action on a notice in a communication, newsletter
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- What would you suggest to make it more “visible”?
 - A short video and testimonies of past participants and share with research networks and scholarly societies.
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- Are there any issues you would like to record?
 - No, thank you for asking. Thank you also for the opportunity.