

Dealing with surplus food for human consumption by adopting resilient practices

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Project Description:

Food insecurity is at odds with the available evidence of food surplus. People often fall prey to food deprivation not because food is unavailable on the market, but as their access to food is constrained due to ineffective distribution. According to FAO (2022), the global volume of edible food waste is estimated at 1.3 billion tonnes, whilst 800 million people go hungry worldwide.

Food that goes through the supply chain and is ready to be served, but for many reasons it is not sold or consumed by its intended customers, is then considered surplus food (Baglioni et al., 2017). Although surplus food redistribution to those in need cannot alone solve the problem of food poverty, it is indeed an alternative to tackle food waste at global level and contributes to diminishing food poverty (FAO, 2022).

Initiatives geared towards the recovery of unsold (but still edible) food for redistribution to assist vulnerable communities have been generated in the last decades to provide affordable and accessible food. Among the different actors involved in this type of supply chain, such as public sector organisations and private organisations generating food surplus, the actual recovery of the surplus food are commonly managed by non-profit organisations (e.g. food banks, canteens, food parcels or solidarity markets) that can vary in terms of characteristics, services and activities (Baglioni et al., 2017; Bazerghi et al., 2016). Often, logistics operators support the collection of surplus food from for-profit organisations and the redistribution of it to local organisations and final beneficiaries.

Food supply chains have a clear societal role in sustaining human life and therefore have moral and ethical concerns attached to it. Nevertheless, research has shown that much of surplus food has been directed to animal feed, anaerobic digestion and landfill, and very little is redistributed to human consumption. Thus, aiming to achieve great levels of effectiveness in recovering and redirecting surplus food, resilient practices should be thought and developed by for-profit and non-profit organisations (Pereira et al., 2014, 2020), where working together they will have better chances to recover and redirect surplus food whilst dealing with unpredictable and/or unplanned events in today's volatile market (Costa et al., 2022).

This project aims therefore to explore resilient practices that can support organisations to recover and redirect surplus food for human consumption.

Acknowledging that food insecurity and living conditions are different in different countries, comparative studies between the UK and other countries are also welcome. In this sense, data collection may follow qualitative, quantitative and/or mixed method approaches since it is well

structured and justified. Proposals could also consider the use of digital technologies to collect data and support the development of resilient actions, if it is appropriate and aligned to the proposal.

The research should have the potential to explore and propose alternatives to deal with food surplus that can be the source of food to thousands of people in need. As a result, this can positively impact the level of food waste that might be reduced by redirecting food surplus to the right channels. Improvements in supply chain resilience can save lives and substantially enhance non-profit and for-profit performance. In essence, it is envisaged that this work will provide contributions to theory and practice, leading to a positive societal impact.

About the Supervisors:

Carla Pereira's research interest covers the area of risk, resilience, and sustainability in supply chain, food supply chain, humanitarian operations, lean thinking and urban resilience.

Francesca Calò's Francesca's research interests include social innovation addressing societal challenges, evaluation of social innovation initiatives .

Nicoleta Tipi's research interests are supply chain design, supply chain complexity, analytics and modelling in supply chains and supply chain performance measurement systems.

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