

Somebody's food: A social science approach to identify, discuss, and transform on-campus food waste behaviour.

INTRODUCTION

This project proposes a social science approach to create a generic process model designed for students residing in university campuses, accommodation managers, recycling companies, and other key stakeholders to identify, discuss, and transform on-campus food waste behaviour that:

- Reduces waste;
- Improves recycling rates; and
- Raises awareness about the environmental impacts around food production and food waste.

Using Royal Holloway as a case study, the main aim is to identify key drivers including institutional issues that influence students' behaviour surrounding food waste and to investigate the use of 'Nudge Theory' as well as 'Lean Systems Thinking' in conjunction with process modelling techniques to shift behaviour through positive reinforcement.

FOOD WASTE AUDIT

Waste from one of the self-catered student halls at Royal Holloway was analysed through several food audits. Mixed recycling largely contained items meant for recycling and the general waste bin had a high degree of cross-contamination. Unopened unexpired food packets and chocolates were found in it, along with recyclable items, hinting at possible lack of awareness as to correct disposal of aforementioned items. Across bins, incorrect garbage bags were used, again hinting at lack of access to recycling practices to be followed.

On average, there was a waste of **66 grams** per meal per student. This amount is higher than what has been measured in other campuses in other countries. (Leal-Filho et al, 2023):

- China: 30gr
- Nigeria: 42gr
- Portugal: 43 gr
- **Royal Holloway: 66gr**
- The US: 400grt

Leal Filho, W., Ribeiro, P. C. C., Setti, A. F. F., Azam, F. M. S., Abubakar, I. R., Castillo-Apráiz, J., ... & Borsari, B. (2023). *Toward food waste reduction at universities. Environment, development and sustainability*, 1-22.

*"I find it easy to throw out food waste but still feel **guilty** when doing it... We **do not have a compost bin**...I like [going food shopping with friends] since it feels more like a fun trip...I bring my own food to campus because it is **cheaper**, and I know I will like it. I just order takeaways occasionally, as I want to lose weight...I have pasta most nights as I have always enjoyed it, it is **cheap and easy to cook**...I cooked quite a lot, so I had to share [the food] with my friend to prevent waste...I bought lunch from the food truck on campus...It is my favourite place because they give you the most food... which I feel is worth the money"*

(Excerpts from students' diaries, 2024)

FOOD DIARIES

Student food diaries highlighted that many students were conscious about the importance of preventing food waste or appropriately recycling it. Several things could get in the way of good intentions:

- Busy schedules leading students to forget to use the food they buy to prepare
- Lack of and physical appeal of recycling facilities
- Takeaways as opportunities to socialise

PROJECT LEGACY

The internal project team continues sharing the campus vision and receiving valuable feedback. The campus is taking proactive action to reduce food waste. There are several initiatives that range from improving the planning and preparation of menus to providing continuous information and messaging to students and to support them. There are also initiatives to trial composting and on-site food growing.

More info at

<https://www.royalholloway.ac.uk/research-and-education/departments-and-schools/business-and-management/somebodys-food-project/>

Reference

Piadeh, F., Office, I., Behzadian, K, Rizzuto, J. P., Bywater, A., Córdoba-Pachón, J. R., Walker, M. A critical review for the impact of anaerobic digestion on the sustainable development goals. *J. of Env. Man.*, 349 (2024) 119458, [10.1016/j.jenvman.2023.119458](https://doi.org/10.1016/j.jenvman.2023.119458)