Plate, Platter, and More: Reimagining Food Waste and Sustainability
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Food wastage means the loss of food due to deterioration or waste and occurs at all stages in the journey of food from farm to fork – production and manufacturing, storage and warehousing, transportation, packaging, distribution, retail, and consumer household.

This may be due to pests, mould, improper handling, cooking techniques, and more. It is divided into two kinds:

- **Food loss** refers to the loss that occurs due to problems in the stages before it reaches the consumer such as production, storage, processing, and distribution.

- **Food waste** is food that is edible and fit for consumption, but deliberately discarded at the last stages in the journey of food – retail and consumption. This could be due to the excess preparation, over-buying, large package sizes, concerns over food labelling, improper disposal of scraps, etc.
To decompose in a landfill, a single head of lettuce can take 25 years. Methane produced by 1 dry ton of food waste is 65 kg. Methane emissions are due to landfills, accounting for 10% of methane emissions. Methane is more harmful than CO₂ by 25 times. Annual estimated food waste for 2018 is 9.5bn kg.
Reflect. Think. Share.

What do we know about waste?
You have a hot cup of green tea. The teabag should be disposed in ____

(a) Mixed Recycling
(b) General Waste
(c) Food Waste Recycling
A bag of frozen green peas have expired. You should ____

(a) throw the bag and peas in General Waste

(b) throw the peas in General Waste and the bag in Mixed Recycling

(c) throw the bag and peas in Food Waste

(d) throw the peas in Food Waste and bag in Mixed Recycling
What is the right way to dispose food waste? In ___

(a) Black garbage bag
(b) Transparent plastic bag
(c) Biodegradable plastic bag
(d) Food bin without any bag
Recycling and Student Life

Understanding the Students’ Perspective

A 2013 nationwide study of over 2,500 students by Suez Recycling and Recovery UK and National Union of Students revealed some alarming facts and figures:

- Only **54.8% were committed recyclers**, compared to the national figure of 75%
- **8.2%** of students **did not recycle** at all
- Nearly half respondents think they are doing enough in terms of recycling, and the other half need system support
- Off-campus students were less aware of the campus recycling system – only **46.9%** were aware of campus recycling schemes
Nudge Theory

Application of Theory to Waste Management

Nudges are conscious efforts to influence people in ways that improve their lives.

Thaler and Sunstein (2008, p. 6) defined a nudge as “any aspect of the choice architecture that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives.”

For an intervention to be a nudge, it must be easy and cheap. With regards to behaviours around food waste, Barker et al.’s research (2021) has shown successful results with three nudge techniques – social norms, reminders, and disclosure with social norms having most impact.

Thus, we aim to apply nudge theory to positively impact people’s attitudes and. Behaviours with regards to food waste.
Somebody’s Food
An RHUL-based project

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.

Website: https://royalholloway.ac.uk/research-and-teaching/departments-and-schools/business-and-management/somebodys-food-project-202223/
Somebody’s Food

The Journey So Far

As part of the project, we embark on the following:

• Research work with EBNet (Environmental Biotechnology Network)

• Understanding the recycling industry with LeapAD

• Work with stakeholders at RHUL to understand its recycling practices and challenges

• Food audits to uncover recycling habits of students and other stakeholders

• Proposing practical solutions to be implemented at the University to positively impact food waste

• Educating students and staff to minimise wastage and maximise effectiveness

• Encourage students to maintain food diaries to introspect their decisions regarding food and food waste
Food Audit - November 2022
Exercise with students at RHUL to maintain daily food diaries, documenting purchase, consumption, preparation, ordering, and waste.

Ordering out usually implies that there is very little food waste, as all the food is already cooked and there is nothing extra to discard. The only problem is consuming the whole quantity of food ordered. This is as sometimes you might order more than what you actually want and intend to eat.

Simply distributing the vegetables scraps in the garden can also work, as after a couple hours they were being eaten by snails and other small insects. That is also a part of the composting cycle.

8% food wasted, discarded, or unused
Conceptualising the Waste Processes

University

Better Performance = More Students
Build Culture of Environmental Literacy

Generate Awareness

Students

Academics + Staff

More Students = More Consumption

Eateries & Housing

Recycling Plant

Recyclables

Food Waste

Composting & Biogas

Fertiliser Sold
Gas used to produce electricity

Landfills

Food Waste

Hazardous

Incineration Plant

Toxins & Pollutants

Gases, Leachate, Toxins

Air, Water & Soil Pollution

Lower Rankings on People & Planet University League

Revenue for the University

Students lose £5.75 per week due to wasted food

66g of food per meal was wasted in Term 1

58% of General Waste was Food Waste

RHHUL is ranked 104 out of 153 universities in the People & Planet University League 2022-23.

Better Rankings on People & Planet University League

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Key Initiatives
- Portion Sizing
- Reduce Single-use Plastics
- Coffee Grounds Recycling
- Rooftop Hydroponics
- Community Farming
- Rainwater Harvesting
- On-site Composting

A Campus Map of the Future

Composting can save up to 33.33% of waste management costs

Garden plots can be 15x more productive than rural holdings

1 coffee sold = 50gm of coffee waste that can be used as fertiliser
How can you start?

Mindful Consumption, Food Waste Diaries, and Correct Recycling Practices
Joining Hands

Inter-function and inter-department collaborations on events, activities, and initiatives
Thank you