



Foodsteps

Challenges and Opportunities of Carbon Footprint Assessments in Catering



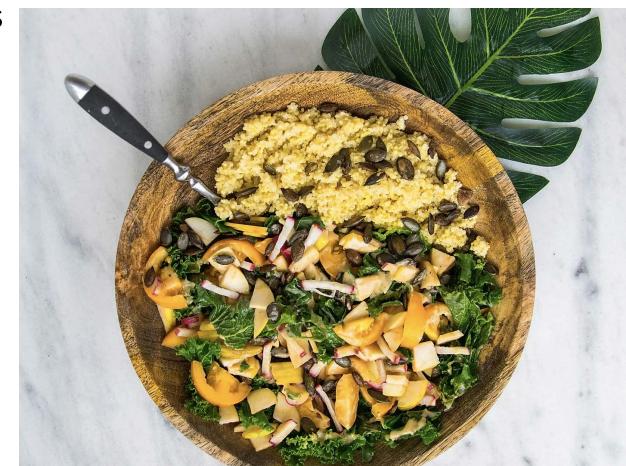
Anya Doherty
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Talk Outline



- 1. Background to Foodsteps
- 2. Challenges and opportunities of carbon footprint assessments

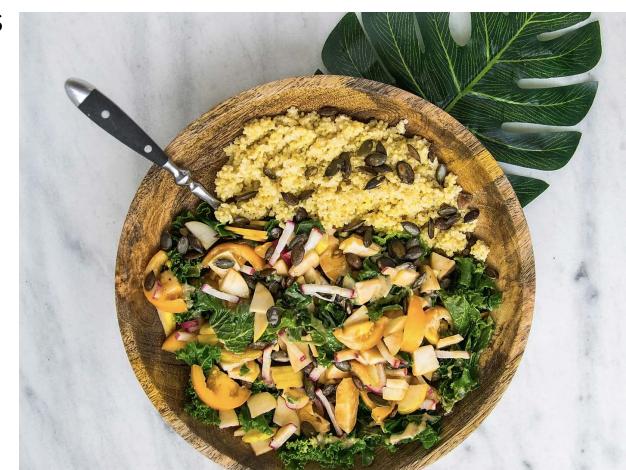


Talk Outline



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2. Challenges and opportunities of carbon footprint assessments



Starting points

- A quarter of global greenhouse gas emissions
- Leading driver of natural habitat loss worldwide

 Need to reach net zero emissions by 2050 in the UK at the latest, ideally sooner.





Starting Points 2 – Measuring & Tracking

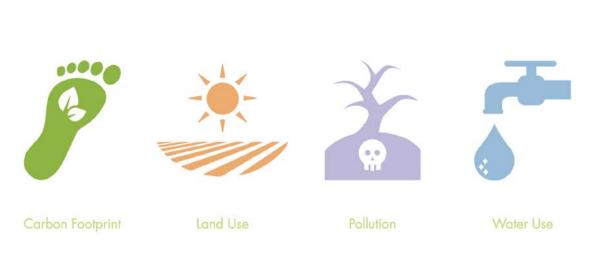


Diabetes - Measure & track insulin levels

Improvement - Measuring & Tracking



Starting Points 2 – Measuring & Tracking





University of Cambridge Conservation

Research Institute





Professor Andrew Balmford



Emma Garnett, PhD candidate



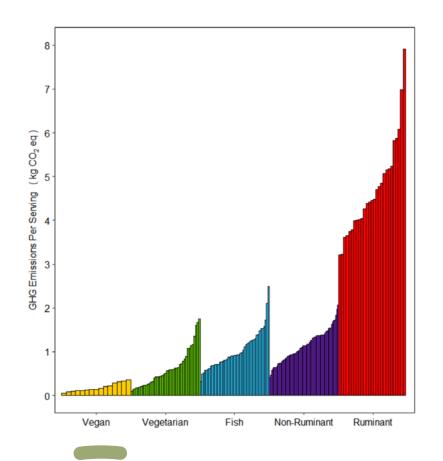
Cafeterias and Climate Change: Reducing impact through meal-based strategies and simplifying methods for calculating the greenhouse gas emissions of meals

A case study from a college cafeteria

Abstract

Food-related greenhouse gas emissions (GHGEs) account for 19-29% of the global total, making current consumption patterns incompatible with climate change targets. Institutional cafeterias are a major setting for food consumption in

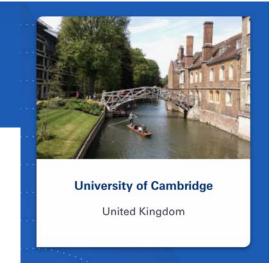
Findings - Research



- Methodology for calculating the carbon footprint and other environmental impacts of catered meals
- 2. Feeding into strategies to make catering more sustainable

Top 10 Finalists







Sustainable Food Journey Report

Reduce the consumption of meat, in particular ruminant meat · The livestock sector accounts for 14% of global of livestock greenhouse gas emissions1. greenhouse • The production of ruminant meat (beef and lamb) demands gas emissions come from methane more feed and water than other livestock as they have relatively inefficient "ruminant" stomachs. Ruminant stomachs also produce methane during digestion, accounting for around 40% of livestock greenhouse gas emissions. Methane has a Oreenhouse 98 stronger warming effect than carbon dioxide¹. Switching from ruminant to non-ruminant meats reduces greenhouse gas emissions by 60% Switching your diet to non-ruminant meats results less water in emitting 85% less greenhouse gases, and using 60% less water and 85% less farmland². These figures increase to 95%, 85%, and 95% respectively when removing meat altogether². % less farmland · While dairy produces less emissions than meat production, it is still reliant on the rearing of an animal. Plant based proteins require less resources than dairy3.

Outcomes

33% reduction in carbon footprint

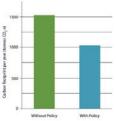
'The Taste of Success': The impact of our Sustainable Food Policy

The Sustainable Food Policy was reviewed in October 2018 by academics in the Departments of Geography and Zoology, CISL and the Behaviour and Health Research Unit. Food purchased by the UCS in two periods, March to May 2015 (pre-policy) and March to May 2018 (post-policy) was compared and the associated carbon emissions calculated.

Reducing the consumption of meat, in particular ruminant meat

the UCSs emissions by 500 tonnes of carbon dioxide each year (Figure 3). That's equivalent to driving 1.2 million miles,

Carbon emissions were reduced by 10.5% between 2015 and 2018, despite an increase In volume of food purchased. When standardised, there was a 33% reduction in carbon emissions per kilogram of food purchased, and a 28% reduction in land use per kilogram.



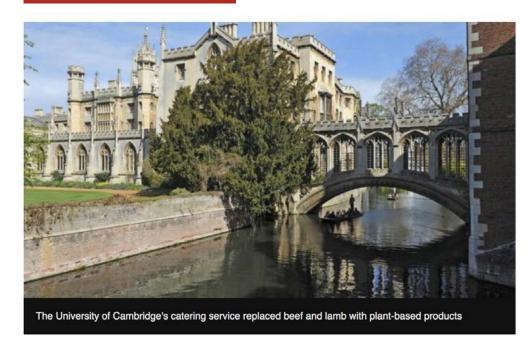
0.7	_	
	Without Policy	With Policy
Figure 3: Project	tions of curtoon footprint per y	year shown in tonnes
	and without the policy items	

	March-May 2015	March-May 2018	% Reduction
Overall Carbon Footprint of Food (tonnes)	287	257	10.5%
Overall Land Use of food (m per year)	434,102	414,107	596
Kg CO, per kg food purchased	4.78	3.22	33%
Land Use per kg food purchased	722	5.18	28%
Total food purchased (kgs)	60107	79863	





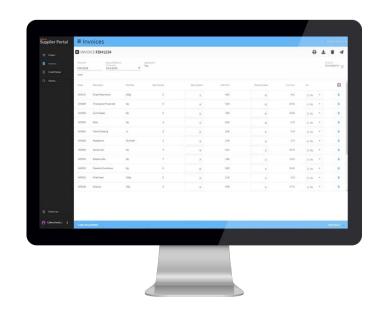
NEWS



The University of Cambridge has said removing beef and lamb from its menus has cut food-related carbon emissions by a third.

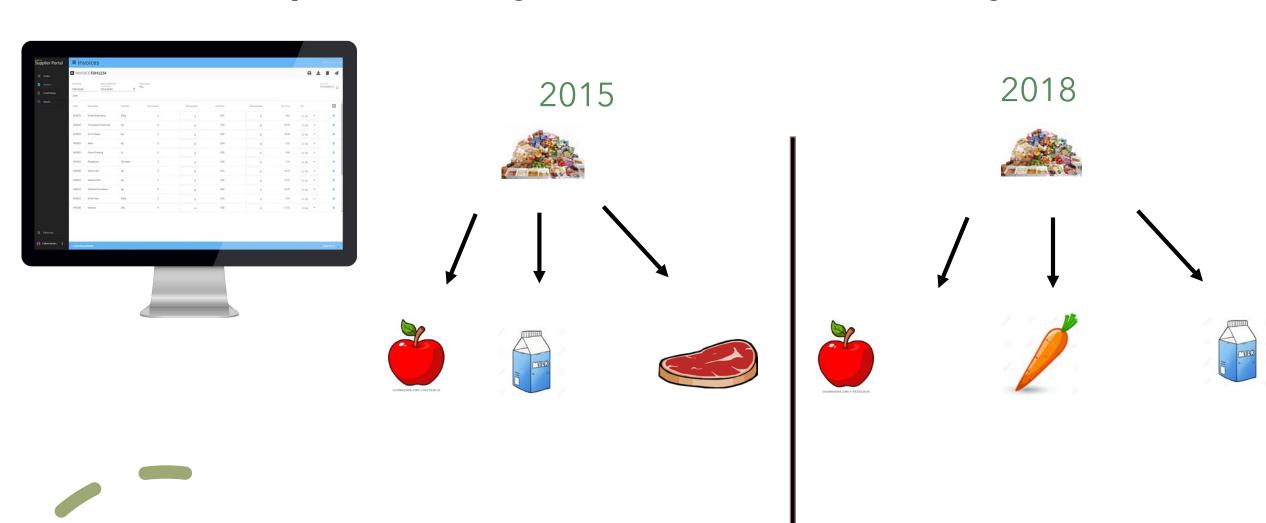
The university's catering service replaced the meat with plant-based products for its 14 outlets and 1,500 annual events from October 2016.

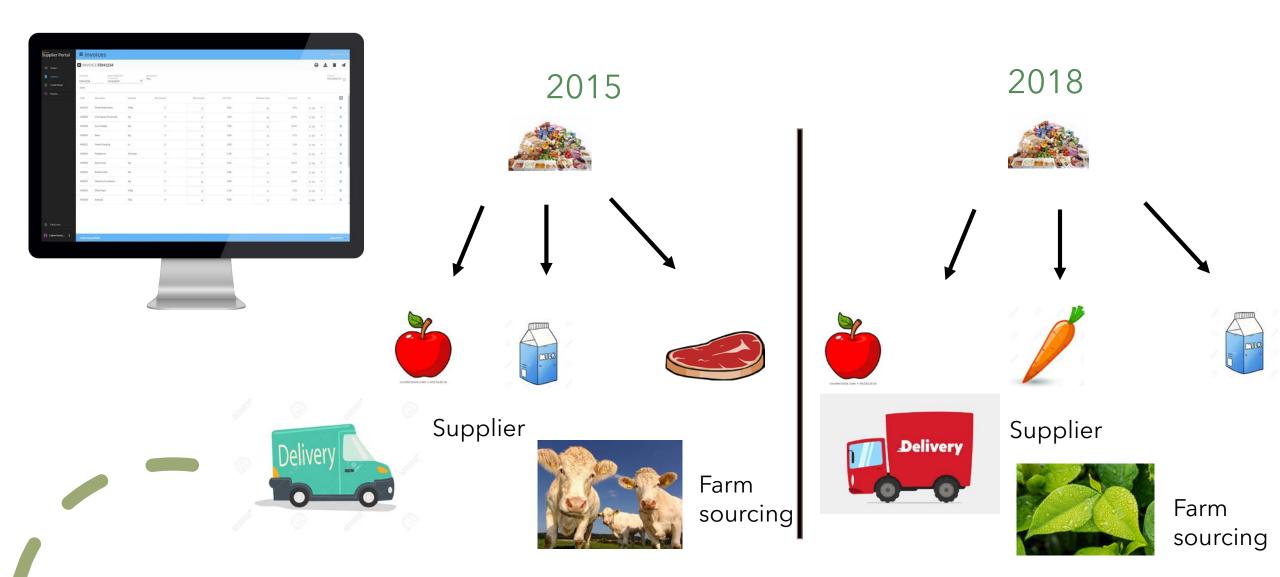
Prof Andrew Balmford, from the university, said it had "dramatically reduced their environmental footprint".













Foodsteps team



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We've supported or completed carbon footprinting assessments for















UNIVERSITY OF WINCHESTER



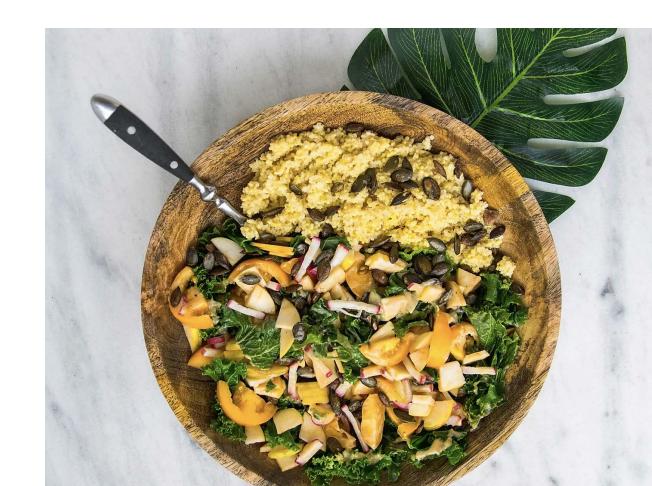




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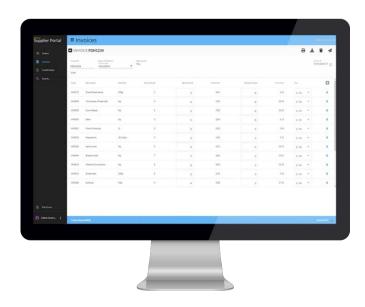
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Carbon Footprint Assessments and Monitoring



Stream 1 - Procurement Data



Stream 2 - Recipe Data

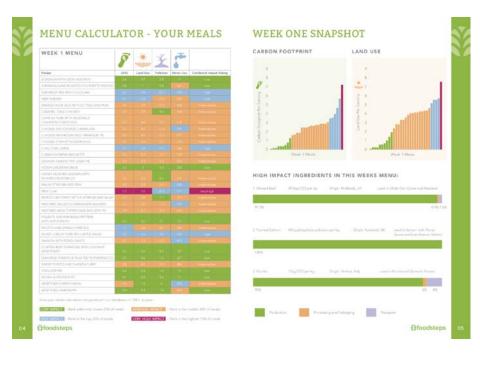




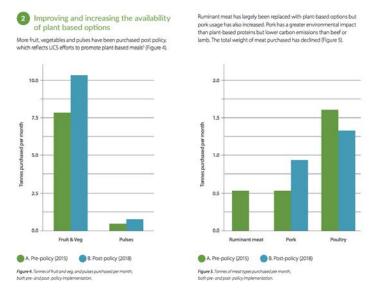
Carbon Footprint Assessments and Monitoring



Carbon Footprint Report



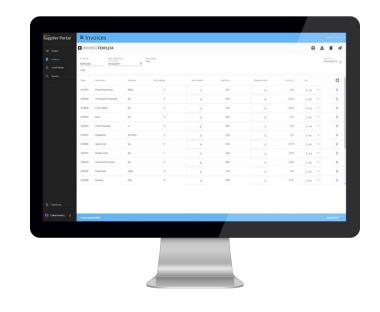
Comparative report



Challenge #1 — Catering Data







- Catering
 procurement data
 and recipes not set
 up for carbon
 footprinting
- Up to 75% of project time is amalgamating and cleaning data





Carbon Labels







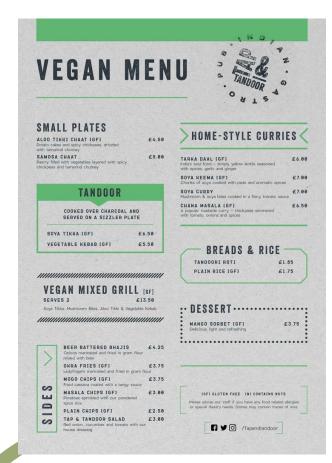
Carbon footprint labels





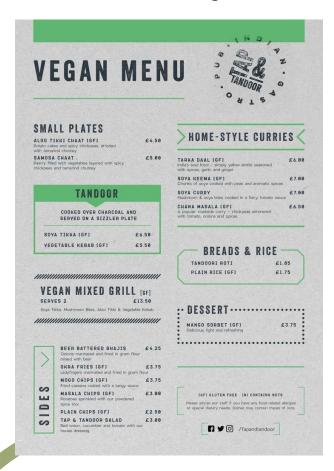
Challenge #2 – Appropriate Customer Engagement

Menu Changes



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In situ labelling





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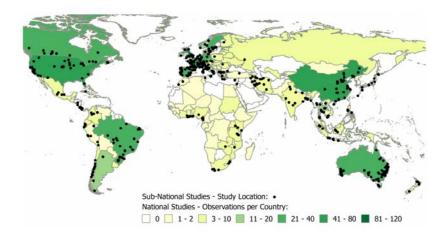
Online Impact Portal



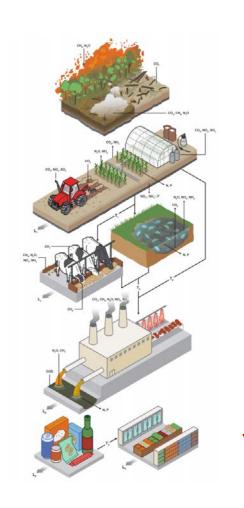




Supply chain analysis & supplier engagement



Credit
Poore & Nemecek *Science* 2018



Farm

Manufacturing

Animal Production Systems

Processing and Wastage

Distribution, Packaging and transport within production system

Challenge #3 — Supply-chain engagement

- Time consuming
- Multiple players
- Complex supply-chains and multiple steps





1. Catering Data

2. Appropriate Customer Engagement

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- One-time project
- Benefits for traceability and data management

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- Build relationship between students/staff and catering
- 65% of adults say they would like more information about food sustainability, and 77% say it factors into decision

- 1. Catering Data
- 2. Appropriate Customer Engagement

- One-time project
- Benefits for traceability and data management

- Build relationship between students/staff and catering
- 65% of adults say they would like more information about food sustainability, and 77% say it factors into decision

- Save costs
- Build relationships with suppliers
- Common problem, joint solution



Thank you

www.foodsteps.org.uk