Sustainability Assembly

Wed 19 February
1- 5.30 pm
Jubilee Lecture Theatre

#SustainableSussex  #GoGreener
Sustainability Assembly
Session 2: Living & Working Sustainably

Chair: Jason Oliver
Buildings: Matthew Arnold
Food: Martha Knott
Single use plastics: Megan Youngs
Mobility: Charlotte Rae
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Buildings

Matthew Arnold & Scott Noble
Energy & Environmental Manager, SEF
Living and Working Sustainably at Sussex

Buildings
Buildings

- Built Environment
- Utility Journey
- Waste and Recycling
Built Environment

Listed Buildings

Opportunities for Improvement

Improvements in Development
Waste and Recycling

Reduce
Reuse
Repair
Recycle
Recover

Reduce

Re-Use

Recycle

Image of Earth from space
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Food
Martha Knott
MSc Global Biodiversity Conservation,
Life Sciences
Food at Sussex

Martha Knott
MSc Global Biodiversity Conservation student
Food Waste Café Sussex Committee Member
Issues around food on our campus

• The provenance of our food

• Sustainable food options

• Food waste
Food Waste

• ~9.5 million tonnes of food wasted annually - 70% edible (2018)

• ~1/5 - 1/4 of purchased food wasted annually

• Why do we have a food waste problem?
Why is this a sustainability issue?

• Agriculture

• Climate Change

• Poverty and hunger

• Water use
Food waste at Sussex

- Food waste from outlets

- Food waste from residences

- Our place in the Brighton and Sussex community
What can we do?

• FareShare
• The Real Junk Food Project
• Gleaning Network
• Brighton and Hove Food Partnership
• Apps: Olio and TooGoodToGo
Sussex so far...

• Food Waste Café Sussex

• Sussex Food Bio-processor

• Eat Central - TooGoodToGo

• Food waste bins in staff and department kitchens

• Food waste included in University and SU policies
Questions:

• Can food waste measures used elsewhere be adapted to life at Sussex? If so, how?

• How can we improve residence food waste contamination rates?

• How can we engage more students to improve their own shopping/cooking/waste habits? Both on and off campus?

• How much should be done through policy vs through grassroots organising?
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Single Use Plastics

Megan Youngs
BA Geography, Global Studies
MEGAN YOUNGS
BA GEOGRAPHY AND FOUNDER OF THE LEAVE NO TRACE SOCIETY

Single Use Plastics at Sussex
Sustainable living education for everyone living, learning and working at Sussex.
Is this zero-waste, plastic-free living trend a privileged fad?

A completely zero waste lifestyle could be considered privileged, with not many alternatives out there, the prices of items are high and access to certain shops is limited.

BUT the lifestyle of consuming less, refusing the unnecessary, borrowing, and choosing second-hand is accessible to most and this is what the university should be focusing on. Not just the ban of single use plastics...
"It's pretty amazing that our society has reached a point where the effort necessary to extract oil from the ground, ship it to a refinery, turn it into plastic, shape it appropriately, truck it to a store, buy it and bring it home is considered to be less effort than what it takes to just wash the spoon when you're done with it."

Source Unknown
Plastic is useful!

- Hygiene
- Prevention of Food Waste
- Low weight = Low Co2 emissions when shipping
- Convenient
- Safety
- Efficiency

Morrison's ditches cucumber sleeves between March and October when the cucumbers are being sourced from British growers. From November to February, they are imported from Spain and Greece, in which they need plastic to keep them fresh.
Plastic-Free
Sussex
SO WHAT IS THE SOLUTION AT SUSSEX?

If we ban all single use plastic...

• It could restrict science research at Sussex

• Other materials such as bioplastics will probably be brought in = lack of infrastructure to deal with these
• It could be inaccessible for some. Plastic bottles are cheap and aren’t necessarily single use, it’s just how we consume the item.

• More glass and metal drinks containers = more Co2 emissions from shipping

• Will the ban be invisible? Is it just greenwashing?

Environmental concern, nudging and policy implementation will lead to behaviour change...

FOR STUDENT CHANGE:
More funding into well thought out, university wide campaigns about single use ITEMS and consumption

FOR STAFF CHANGE:
Implement policies where departments are taxed for unnecessary plastic and are held accountable for every plastic procurement
Staff

University Procurement Guidelines for Departments and Partners (SU, Sussex Food and SEF):

What are unnecessary items?

Can it be reused?

Can it be recycled?

Have you contacted suppliers asking for no unnecessary or recyclable packaging?

Provide evidence that there are no other alternatives

Students

Provide incentives for not buying single use items.

Educating people on the impacts they are having by buying single use products.

Taxes on single use items will change people's behaviour towards the value of the material.

A University and student-led campaign will access all communities at the university.
The nudge theory proposes that we use the underlying subconscious processes influencing our decision making to “nudge” individuals in the direction that would be best for their well-being (Thaler & Sunstein, 2009).

Most of our single use items are in our existing shop outlets (SU Shop and the Co-Op)

Using the Nudge Theory as a solution:
Change shop layouts with re fill stations (coffee machines, cold water fountains, soft drink pumps) and zero waste options at the front of the store. These would need to be subsidised by the University if they are more expensive than their single use item competitor.
Single use items will have their own isle titled 'single use items'.
Make reusing the norm and single use a luxury.
How do we go about campaigning and making it an integral structure in every single Sussex student and staff’s day to day life?

Is this realistic in a 5 year time frame? If not, why?

Does Sussex have bigger fish to fry?

Why can't we have fresh produce shops on campus?

Do you agree/disagree that consumption campaigning is more important than plastic campaigning?
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Mobility
Charlotte Rae
Lecturer, Psychology
The climate impact of academic flying... and what can we do about it?

Dr Charlotte Rae
School of Psychology

c.rae@sussex.ac.uk
@NeuroRae

www.sussex.ac.uk/psychology/abc-lab/climate-change
Why is air travel a problem?

Emissions budget for <2C: ~2 tonnes per year, per person

1 return transatlantic flight = 80% of your personal sustainable *annual* carbon budget

Low Impact
- < 0.2 tCO₂e

Moderate Impact
- 0.8 - 0.2 tCO₂e

High Impact
- > 0.8 tCO₂e

Wynes & Nicholas (2017) Environmental Research Letters
Slide adapted from Kim Nicholas: https://www.slideshare.net/kimberlynicholas/academic-flying
Why do academics fly?

- Conferences
- Invited talks
- Examine PhD vivas
- Collaborations
- Field work

Cultural narrative that these are crucial to career success

However, recent evidence suggests:

No relationship between air travel and metrics of academic productivity & influence - publications & citation rates*

How frequently do we fly?

Example new Lecturer
• Conferences: 1-2 a year
• Invited talks: 1-2 a year

= 5 tonnes CO₂

Example Professor

https://flightlessprofessors.org

10-15 flights a year

= 20 tonnes CO₂

15% of UK residents take 70% of flights.
50% of UK residents did not fly at all last year.
>80% of the world has never flown.*

Estimates for aviation’s contribution to global emissions are 2-10%.
That’s because most of the world never gets on a plane.

*Reasons to be Cheerful Podcast episode 110, October 2019
Why is reducing flying so important?

Carbon footprint of Dr Peter Kalmus (climate scientist), before & after they stopped flying.

Reducing flying is the single biggest action one individual can take.

(See #flyingless FAQ, https://academicflyingblog.wordpress.com/)
Can’t I just offset?

- Now widely acknowledged to be very problematic
- Tree-planting, energy efficiency – all needs to happen anyway
- Trees will not absorb amount needed fast enough for IPCC targets
- Poorly regulated industry
- ...enables us to continue ‘business as usual’ and avoid confronting the ‘inconvenient truth’...

(See #flyingless FAQ, https://academicflyingblog.wordpress.com/; Anderson 2012 Nature)
What are our other options?

- Remote presenting, video-conferencing
- Train (10-20% carbon footprint of flight)
- Combine trips

Some flying will still be necessary, by some staff…

…but we need to much more carefully assess the potential benefits in light of the huge carbon costs

(See #flyingless FAQ, https://academicflyingblog.wordpress.com/)
What are the barriers to sustainable travel?

- Remote presenting
  facilities – at presenter’s end, & audience’s
- Train
  time, £, organisation
- Cultural expectations
What could we do at Sussex?

Sustainable Staff Business Travel Policy

• Travel decision tree / hierarchy

University of Edinburgh Travel Hierarchy

Tyndall Centre Decision Tree
What could we do at Sussex?

**Sustainable Staff Business Travel Policy**

- Travel decision tree / hierarchy
- Remote presenting facilities:
  - both for us to present remotely,
  - and to host remote speakers from other institutions
- Train-over-plane travel fund scheme
- Frequent flyer levy
  - increasing surcharge with each additional flight per year*

*Reasons to be Cheerful Podcast episode 110, October 2019*
What are other universities doing?

THE UNIVERSITY of EDINBURGH

Kilograms CO₂e / Academic year

To see the report for a particular year, click on the column.
What are other universities doing?

- Track carbon emissions
- Personal reduction targets
- Destination <12 hours: train
- Planned train-over-plane fund
Caveats & intersectionality issues

Caveats

• I’m from UK; I don’t do fieldwork; I’m faculty

Intersectionality

• Reducing travel: different impacts on faculty (who have job security), versus early-career researcher (building networks)
• Remote digital interactions: foster participation of those who can’t travel for family, health, personal reasons
• Sussex is an International University with a vibrant & diverse staff – and student – population (which is really important)
Importance of social norming

- Cultural expectations cue our behaviour
- Change culture: change behaviour
- This is what has more impact from your individual action (reducing your own flying), rather than the actual emissions themselves
- Gives politicians and other sectors a mandate for action
- Other universities are talking about this too…
Sussex Strategy 2025

DISRUPTIVE BY DESIGN

Designed to be different, the University of Sussex has a distinguished tradition of disruptive and experimental interventions.

kindness  integrity  inclusion  collaboration  courage
The climate impact of academic flying... and what can we do about it?

Dr Charlotte Rae
School of Psychology

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@NeuroRae

www.sussex.ac.uk/psychology/abc-lab/climate-change
Resources – footprint of (academic) flying

Kim Nicholas (Lund University): slides on academic flying
https://www.slideshare.net/kimberlynicholas/academic-flying

#flyingless FAQ
https://academicflyingblog.wordpress.com/
https://docs.google.com/document/d/1URRRh4zMSpvtZY08F9-Rkbx0qkNNmfz1zqOlqZWKxkE/edit

Reasons to be Cheerful podcast, episode 110, '(F)air miles: the case for a frequent flyer tax'
https://www.cheerfulpodcast.com/rtbc-episodes/fair-miles

#FlightFree2020
https://flightfree.co.uk/
Resources – other universities

Tyndall Centre Travel Strategy
https://www.tyndall.ac.uk/travel-strategy

Edinburgh Business Travel

Lund University Centre for Sustainability Studies
https://www.lucsus.lu.se/sites/lucsus.lu.se/files/lucsus_travel_policy.pdf

Utrecht Travel Differently
Tyndall Code of Conduct

Code of Conduct to support a low-carbon research culture:

- **Monitor and reduce.** I will keep track of the carbon emissions of my professional activities, and set personal objectives to reduce them in line with or larger than my country's carbon emissions commitments (see Set your targets below).
- **Account and justify.** I will justify my travel considering the location and purpose of the event, my level of seniority, and the alternative options available.
- **Prioritise, prepare and replace.** For activities that I organise, I will choose the location giving high priority to a low carbon footprint of travel of the participants, and I will encourage, incorporate and technically support online speakers and webcasts to reduce unnecessary travel.
- **Encourage and stimulate.** I will resist my own FoMo (Fear of Missing Out) from not attending everything and work towards sensitising others to the need of the research community to walk the talk on climate change.
- **Reward.** I will work with my peers, Institute and Funders to value alternative metrics of success and encourage the promotion of low-carbon research as a realisable alternative to a high-carbon research career.

**Before you travel:** Check the decision tree below. It will help you identify low-carbon travel alternatives and maximize the benefits of your travel emissions.

Decision Tree

https://www.tyndall.ac.uk/travel-strategy
Can’t I just offset?

Kevin Anderson
(Ex-Director, Tyndall Centre for Climate Change Research UK)

“Offsetting is worse than doing nothing. It is without scientific legitimacy, is dangerously misleading, and almost certainly contributes to a net increase in the rate of global emissions growth.”

Anderson (2012) Nature
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