Sustainable travel principles for the School of Global Studies
December 2022

Introduction

Sussex has a reputation as a centre of excellence for teaching and research on sustainability. The University has also declared that there is a climate emergency: these words need to be put into practice. Quite apart from actual impacts on emissions, within the context of rising populism and backlash politics, it is politically and symbolically important that academics engage with this issue and practice what they preach.

This document sets out principles to inform sustainable travel for the School of Global Studies. The principles are proposed as a guide for action, not as a formal set of 'rules'. However, we anticipate that over time they will be normalised as part of our practices in a way which reflects our commitments as a school to sustainability and social justice.

Arriving at the principles

The principles outlined here reflect discussions among some faculty members and students, including the school's Sustainability Working Group, lessons from practice elsewhere and what we know from academic studies (summarised in the appendix below). They have been agreed by the School Management Team. Some key considerations in this are:

- This document is one part a broader sustainability strategy at school and university level that covers energy use, buildings, food, biodiversity, finance, waste and transport. We recognise that at school level we can only control things within our purview (i.e. not buildings, energy generation and waste so much- though we can and do lobby for greater action on these things by the university). Transport is an obvious place to start.
- These are principles to govern use of school expenditure. The focus below is on business travel funded by individual travel allowances and personal research funds. If staff have external grants/consultancy etc. we can offer guidance and principles for these but cannot specify how those funds are spent (though we note many funders are now assessing travel budgets against carbon and other criteria).
- This policy does also not cover commuting by Global Studies staff or students, nor international travel as part of the education student experience.
- The focus is mainly on flights, though with some discussion of car use policy. We focus on flights because aviation currently accounts for 2.7% of global energy-related CO_2 emissions and is the fastest growing mobility segment, with a rising demand of 4.5% per year. IPCC's "Middle of the Road" scenario (SSP2) predicts aviation emissions can triple by midcentury unless action is taken to reduce demand. Crucially, unlike in other areas, there are no clear technological fixes for reducing emissions from air travel.
- The principles have been developed with a view to recognising the different positionalities of staff members: stage in career, access to other source of funds, the necessity of travel for research will vary (see below). It is for this reason that these are principles to guide action and funding, rather than strict rules

School principles:

1. We encourage a reduction in unnecessary travel for all staff and encourage virtual attendance where possible
2. We adopt a broad principle that the maximum number of flights paid by the School per staff member is one medium/long-haul flight (i.e. longer than 5 hours) every other year.
3. The school recommends that travel within the UK and Europe should not be by plane where travel by train takes no more than 8 hours door-to-door

4. Business travel by car should be with multiple passengers and by electric car wherever possible.
5. Travel outside of agreed norms will not generally be covered by School research allowances/incentive funds.
6. All conferences, workshops etc. that are organised at Sussex should include the option of virtual international participation.
7. All incoming workshop and seminar participants as well as external examiners to Sussex should not travel by plane where travel takes no more than 8 hours door-to-door.
8. In general, we aim to reduce air travel for activities such as field research and impact activities (for example, clustering activities as much as possible or conducting one longer research trip rather than multiple shorter ones or working with local researchers as much as possible).   When staff have to fly, we encourage them to try to undertake multiple activities (eg. not just presenting one paper, scheduling some research/teaching) to better justify the carbon expended.
9. Air travel will not be approved for candidates attending interviews in the school.

Considerations in applying the principles
- Some types of work require more air travel than others, eg. fieldwork-based research, internationally (as against UK/Europe-based) research, impact and engagement work. These types of work are less substitutable with virtual participation, unlike conferences.
- For purposes of career building, priority for exceptions should be given to more junior faculty and early career researchers over senior faculty that may have benefitted from unconstrained air travel in the past. However, it is important to note that increased attendance at conferences is not correlated with career advancement or publication output (see below) and that time saved by travelling less to international conferences can be productively used in other ways.
- For reasons of health, it may be harder for some people to travel by train where multiple changes may be required.
- Childcare considerations and other caring responsibilities may demand the use of quicker but more carbon intensive modes of travel, while also noting these concerns are also a key driver of demands for virtual participation to enable those with caring responsibilities to be able to participate in meetings and conferences.

University level:
In addition to the above (which could be adopted by the University), we urge the University to consider the following:

1. To adopt an overall carbon descent plan for all emissions (scopes 1, 2 and 3), with targets every 5 years; this would include business travel emissions, plus emissions from commuting and students. One crucial early step towards this would be for the University to invest in monitoring and reporting its scope 3 (indirect) emissions.
2. To announce its intention to be a 'Living Lab' for carbon emissions reductions.
3. To take steps to dis-incentivise international travel and esp. flights, e.g. by ensuring that attendance at international conferences is not used as a promotion criterion.
4. To invest in IT infrastructure and support that would make conference travel less necessary).
5. To call for Research England and academic associations to adopt policies to reduce research-related transport emissions.

Appendix:
What are others doing and saying?
Our suggestions above are based on an understanding of what others are doing. Below we cut and paste what we know so far:

We also acknowledge that academic associations are increasingly supporting virtual participation for a range of reasons beyond sustainability including:

(i)   **Health concerns**: in a context of Covid and likely future pandemics, as a result of the probable increase in other zoonotic diseases exacerbated by the accelerated devastation of the natural world, convening large gatherings of people from different parts of the world is unlikely to be a viable model for future conferences.

(ii)   **Diversity and inclusion**: Greater provision of virtual participation can enable more participation from southern scholars who often do not have budget for flights and travel to North America- or face visa restrictions in getting there. It is also the case that due to caring responsibilities, or lack of access to travel funds for early career or independent scholars, many academics are excluded from participation by an insistence on being physically present.

Initiatives

Flying Less initiative:
Useful resource on what others are doing:
https://academicflyingblog.wordpress.com/2019/06/18/updates-on-various-fronts/

Tyndall Centre: https://tyndall.ac.uk/travel-strategy
The research community has highlighted for several decades the implications of greenhouse gas emissions for climate change. In response, world governments have agreed to limit global temperature change to 2°C, which requires drastic reductions in greenhouse gas emissions. In advanced economies, a commitment to a 2°C limit generally represents a reduction of emissions of between 80-95% from the 1990 baseline. Despite this, emissions from international aviation increased by 53 % between 1990 and 2011 in those countries. Academic researchers are among the highest emitters, primarily as a result of emissions from flying to conferences, project meetings, and fieldwork. Here we review the rationale for and alternatives to the current high-carbon research culture. We find no clear obstacles to justify an exemption for the research community from the emission reduction targets applied elsewhere. While stimulating ideas and creating personal links of trust are important benefits of face-to-face meetings, these benefits may be outweighed by the opportunities to reach much wider communities by developing and using new social media and online platforms. We argue that the research community needs a roadmap to reduce its emissions following government targets, which ironically are based on findings of the research community. A roadmap to a low-carbon research space would need simple monitoring, an example of which is presented here and documents the Tyndall Travel Tracker, incentives from international and national research platforms and funders, and a fundamental change in the research culture to align the walk with the talk. Such a change in practice would strengthen the trust of the public in research.

The Tyndall Travel Strategy aims to help individual researchers and the Centre as a whole to reduce their emissions through time. It includes a code of conduct, and a system to monitor and justify travel emissions and to support individual commitments to reducing emissions.

Lund University Centre for Sustainability Studies:
https://www.lucsus.lu.se/article/lucsus-presents-new-travel-policy-to-reduce-work-related-emissions
The commitments are not binding but each staff member is expected to set concrete, personal reduction targets that go beyond what they would otherwise have done. LUCSUS will track and collect all carbon emissions for one year to start with.

The travel policy includes recommendations for ground travel for distances within 12 hours reach, and for all destinations within Sweden. Other centre on considering opportunities for virtual meetings, following conferences on social media, and to make sure that all staff who travel have a key role at the destination. For longer travel, where you have to fly, staff are asked to consider pursuing additional activities such as teaching at an institution for example to maximise the benefits of the trip.

Copenhagen Department of Food and Resource Economics:
https://politicalecologynetwork.org/2019/05/21/travel-policy-reduces-travel-costs-and-co2-emissions/
"In 2015, my department at University of Copenhagen created a simple travel policy that aimed to reduce travel costs and employees CO2 footprint from travelling. The policy sought to create awareness and to put a cap on numbers of flights financed by internal sources. Since it was put in place in late 2015, both direct transport costs and CO2 emissions from flying have been reduced by 15% per scientific staff year. Currently, our department is evaluating the possibilities for initiatives that can result in further reductions, e.g. no longer financing domestic flights, strongly encouraging employees to choose bus or train for destinations within 12 hours, and boosting video-conference facilities. The policy can be found here .

Carbon Neutral University Network - Sheffield:
https://www.carbonneutraluniversity.org/
https://www.carbonneutraluniversity.org/zero-carbon-university-guide.html

Stockholm Environment Institute:
https://www.sei.org/about-sei/environmental-policy/
The first step in reducing carbon emissions is to measure and publicly report those emissions.
In 2019 we have adopted a progressive new environmental policy with mandatory actions for all centres to monitor their air travel emissions and develop environmental action plans.

University of Ghent
https://www.ugent.be/en/ghentuniv/principles/sustainability/travelpolicyhttps://www.ugent.be/en/ghentuniv/principles/sustainability/travelpolicy

Academic studies

'Academic air travel has little influence on professional success'
https://www.sciencedirect.com/science/article/pii/S0959652619311862?via%3Dihub
Lowering the growth in greenhouse gas emissions from air travel may be critical for avoiding dangerous levels of climate change, and yet some individuals perceive frequent air travel to be critical to their professional success. Using a sample of 705 travellers at the University of British Columbia, we investigated the influence of career stage, research productivity, field of expertise, and other variables on academic air travel and the associated emissions. This is the first time that research has evaluated the link between observed air travel and academic success. First, we compared air travel behaviour at different career stages and found that individuals at the start of their careers were responsible for fewer emissions from air travel than senior academics. Second, since career advancement may depend on an academic's ability to form partnerships and disseminate their research abroad, we investigated the relationship between air travel emissions and publicly available bibliometric measurements. We found no relationship between air travel emissions and metrics of academic productivity including hIa (h-index adjusted for academic age and discipline). There was, however, a relationship between emissions and salary that remains significant even when controlling for seniority. Finally, based on the premise that academics studying topics related to sustainability may have greater responsibility or motivation to reduce their emissions, we coded 165 researchers in our sample as either "Green" or "Not-green." We found no significant difference between Green and Not-green academics in total air travel emissions, or in the types of emissions that might be

easiest to avoid. Taken together, this preliminary evidence suggests that there may be opportunities, especially for academics who study topics related to climate and sustainability, to reduce their emissions from air travel while maintaining productive careers.

Towards a culture of low-carbon research for the 21st Century
https://tyndall.ac.uk/sites/default/files/publications/twp161.pdf

The research community has highlighted for several decades the implications of greenhouse gas emissions for climate change. In response, world governments have agreed to limit global temperature change to 2°C, which requires drastic reductions in greenhouse gas emissions. In advanced economies, a commitment to a 2°C limit generally represents a reduction of emissions of between 80-95% from the 1990 baseline. Despite this, emissions from international aviation increased by 53 % between 1990 and 2011 in those countries. Academic researchers are among the highest emitters, primarily as a result of emissions from flying to conferences, project meetings, and fieldwork. Here we review the rationale for and alternatives to the current high-carbon research culture. We find no clear obstacles to justify an exemption for the research community from the emission reduction targets applied elsewhere. While stimulating ideas and creating personal links of trust are important benefits of face-to-face meetings, these benefits may be outweighed by the opportunities to reach much wider communities by developing and using new social media and online platforms. We argue that the research community needs a roadmap to reduce its emissions following government targets, which ironically are based on findings of the research community. A roadmap to a low-carbon research space would need simple monitoring, an example of which is presented here and documents the Tyndall Travel Tracker, incentives from international and national research platforms and funders, and a fundamental change in the research culture to align the walk with the talk. Such a change in practice would strengthen the trust of the public in research.

Carbon footprint of science: More than flying
https://www.sciencedirect.com/science/article/pii/S1470160X13002306   Previous efforts to evaluate the climate change impact of researchers have focused mainly on transport related impact of conference attendance, and infrastructure. Because these represent only a part of the activities involved in the science making process this short note presents the carbon footprint of a com- plete science making process of one specific case. Apart from presenting the total footprint, we evaluate the relative contribution of the different scientific activities, and quantify mitigating possibilities. The case PhD project had a carbon footprint of 21.5 t CO_2-eq (2.69 t CO_2-eq per peer-reviewed paper, 0.3 t CO_2-eq per citation and 5.4 t CO_2-eq per h-index unit at graduation) of which general mobility repre- sents 75%. Conference attendance was responsible for 35% of the carbon footprint, whereas infrastructure related emissions showed to contribute 20% of the total impact. Videoconferencing could have reduced the climate change impact on this case PhD with up to 44%. Other emission reduction initiatives, such as using green electricity, reduction of energy consumption, and promoting commuting by bicycle, could have triggered a reduction of 14% in this case study. This note fits in the movement of academics and universities willing to be green. The study confirms that researchers' mobility is the biggest contributor to his or her carbon footprint, but is not limited to conference attendance, showing the importance of considering all activities in the science making process.

How to cope with mobility expectations in academia: Individual travel strategies of tenured academics at Ghent University, Flanders https://www.sciencedirect.com/science/article/pii/S2210539513000400

The production and exchange of knowledge are inextricably linked to different compulsions to corporeal proximity and therefore travel. As primary producers and transferors of knowledge, academics are no exception to this rule, and their compulsions seem to be further propelled by institutional discourses regarding the alleged virtues of "internalization." Tenured academics, moreover, have a high degree of independence and can therefore easily choose how to cope with compulsions and constraints to internationalize. However, the business-travel literature has paid scant attention to academics and their individual contexts. In an effort to rectify this situation, this paper explores a travel dataset of tenure-track academics (N = 870) working at Ghent University. The insights emerging from this analysis are contextualized

by means of in-depth interviews of tenured academics (N = 23) at the same institution. This paper argues, first, that varying compulsions and constraints at home and abroad lead to distinct non-travel and travel-intensive academic roles. And second, that academics who have difficulties coping, try to ra- tionalize their corporeal travel behaviour and their mobility behaviour to meet the needs and expectations to inter-nationalize. These strategies give an indication of how travel-related working practises can become more efficient and sustainable in the future.

Developing a conceptual framework for slow travel: a grounded theory approach
https://www.tandfonline.com/doi/full/10.1080/09669582.2010.519438   This paper discusses the sociocultural phenomenon of slow travel and explores and clarifies definitional issues. The 30-year-plus antecedents of slow travel are examined. A literature review shows a concentration on four key features: slowness and the value of time; locality and activities at the destination; mode of transport and travel experience; and environmental consciousness. Links to the slow food and slow city movements are discussed, and evidence that slow travel is an important emergent form of tourism in Europe, accounting for 10% of the holiday market, is provided. A grounded theory approach continues the exploration, involving 23 in-depth interviews with practitioners and academics, which revealed that their core requirements for slow travel centred on slowness, the travel experience and environmental consciousness. There was a lack of consensus about the eligibility of car travel and high-speed rail. Slow travel is seen as a group of associated ideas rather than as a watertight definition; it is a mindset about travel rather than a tangible product and concentrates on lack of speed rather than slowness per se. The conclusion shows it to be a growing part of the sustainable tourism paradigm and proposes a working definition of slow travel.

The Fear of Not Flying: Achieving Sustainable Academic Plane Travel in Higher Education Based on Insights from South Australia https://www.mdpi.com/2071-1050/11/9/2694

Universities are both disseminators and producers of the climate knowledge needed to institute the social and cultural change required for climate adaptation and mitigation to occur. They also have the opportunity to lead and model pro-environmental behavior, yet often have large carbon budgets, partly caused by staff travel. This paper explores this topic via an institutional case study of what factors motivate the academic community to undertake plane travel and the implications this has for wielding wider societal influence in terms of pro-environmental behavior. We report on a year-long qualitative social science study of academic plane travel at the University of Adelaide, South Australia where we investigated the tension between academic requirements to travel and the institution's formal commitment to sustainability within the Campus Sustainability Plan. We found that, while many academics were worried about climate change, very few were willing to change their current practice and travel less because they are not institutionally incentivized to do so. There is a fear of *not* flying: plane travel is perceived as a key driver for career progression and this is an ongoing barrier to pro-environmental behavior. We conclude that institutional and political change will be required for individual change to occur and sustainable agendas to be met within academic communities.

Meet & fly: Sustainable transport academics and the elephant in the room
https://www.sciencedirect.com/science/article/pii/S096669231730844X

Cutting the carbon emission of international conferences: is decentralization an option?
https://ideas.repec.org/a/eee/jotrge/v24y2012icp462-466.html

Commentaries etc.

"Climate scientists have a moral responsibility to lead by example":

https://thehill.com/opinion/energy-environment/433222-climate-scientists-have-a-moral-responsibility-to-lead-by-example

"An open letter to Danish universities: Let us show the way towards a more ambitious climate agenda" http://sciencenordic.com/open-letter-danish-universities-let-us-show-way-towards-more-ambitious-climate-agenda

"Call on Universities and Professional Associations to Greatly Reduce Flying" https://www.change.org/p/universities-and-professional-associations-call-on-universities-and-professional-associations-to-greatly-reduce-flying

"We study the climate. We chose not to fly to D.C. for a conference on it." https://www.washingtonpost.com/outlook/2018/12/10/we-study-climate-we-chose-not-fly-dc-conference-it/

"The Climate Change Hypocrisy Of Jet-Setting Academics" https://www.huffpost.com/entry/opinion-dolsak-prakash-carbon-tax_n_5abe746ae4b055e50acd5c80?guccounter=1

"Op-Ed: My airline gold status should come with a carbon tax" https://www.latimes.com/opinion/op-ed/la-oe-blumstein-20181214-story.html

Some interesting blogs with good arguments to justify policy (mainly by Kevin Anderson) here: http://kevinanderson.info/blog/hypocrites-in-the-air-should-climate-change-academics-lead-by-example/ https://newint.org/sections/argument/2014/01/01/flying-still-beyond-the-pale/ http://www.demand.ac.uk/04/06/2014/fly-or-die-air-travel-and-the-internationalisation-of-academic-careers/ http://www.greenbooks.co.uk/Book/468/Beyond-Flying.html "Duality in climate science" https://www.nature.com/articles/ngeo2559

"University sector must tackle air travel emissions" https://theconversation.com/university-sector-must-tackle-air-travel-emissions-118929

"The #FlyLess and #NoFly Movements | Would You Stop Flying If You Knew Its True Cost?" https://ethical.net/climate-crisis/the-flyless-and-nofly-movements-would-you-stop-flying-if-you-knew-its-true-cost/

I collected a number of studies related to academic flying in a dropbox folder - here: https://www.dropbox.com/sh/m5vvpccom09pgzh/AACN6ZOrm3t0MtQLADEt7fZ8a?dl=0 I think you should be able to add more, if you like.
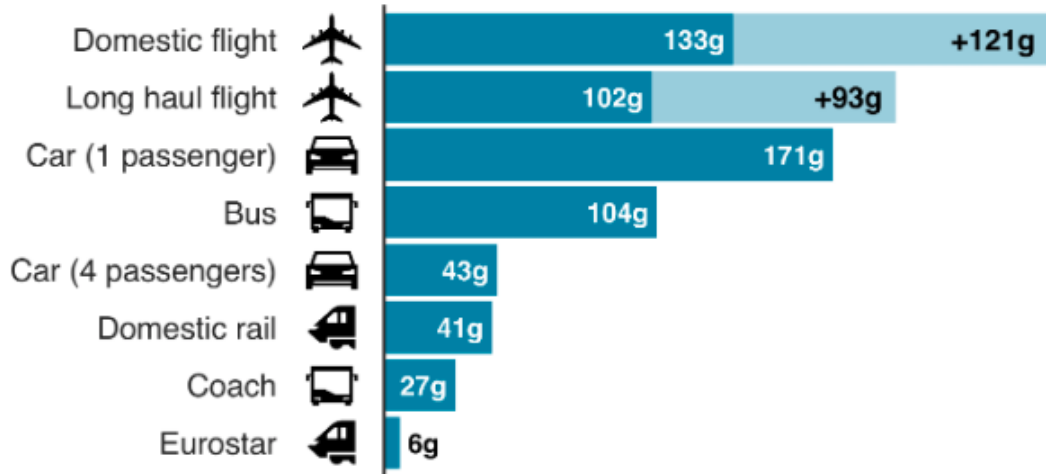
The Scientists for Global Responsibility conference coming up in November https://www.sgr.org.uk/events/scientists-behaving-responsibly-should-science-walk-talk-climate-breakdown

Why Carbon Credits For Forest Preservation May Be Worse Than Nothing

https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/

Emissions from different modes of transport
Emissions per passenger per km travelled

■ CO2 emissions ■ Secondary effects from high altitude, non-CO2 emissions

Mode	CO2 emissions	Secondary effects
Domestic flight ✈	133g	+121g
Long haul flight ✈	102g	+93g
Car (1 passenger) 🚗	171g	
Bus 🚌	104g	
Car (4 passengers) 🚗	43g	
Domestic rail 🚆	41g	
Coach 🚌	27g	
Eurostar 🚆	6g	

Note: Car refers to average diesel car

Source: BEIS/Defra Greenhouse Gas Conversion Factors 2019   B B C