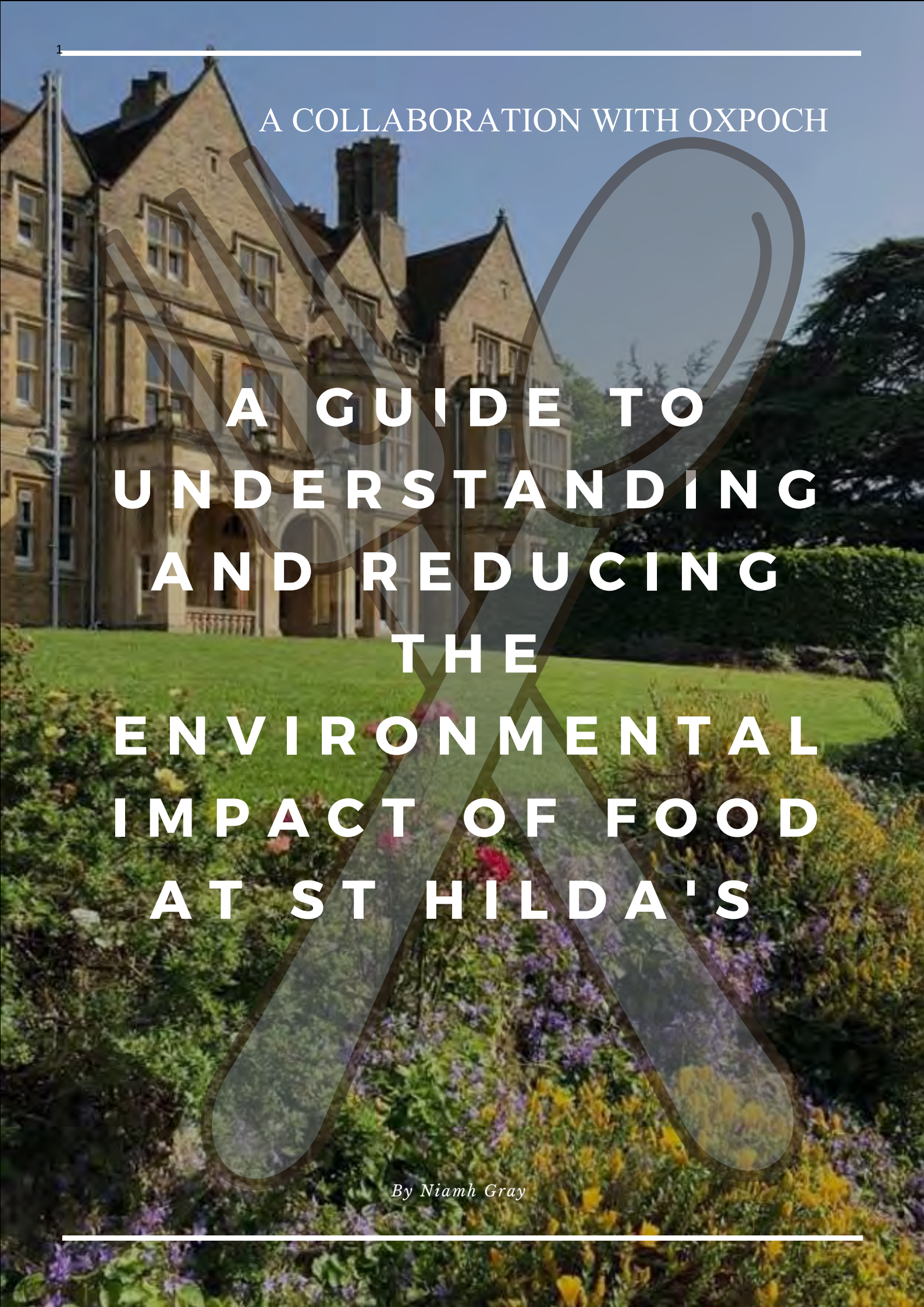
A COLLABORATION WITH OXPOCH



A GUIDE TO UNDERSTANDING AND REDUCING THE ENVIRONMENTAL IMPACT OF FOOD AT ST HILDA'S

By Niamh Gray

Contents...

Introduction

Oxford University is in the process of aiming to cut emissions by 50% from their peak by 2030 and achieve no net biodiversity loss by 2050

Such an ambitious target requires cooperation from all stakeholders that currently contribute to the University's greenhouse gas and biodiversity footprint

The purpose of this handbook is to, 1) inform St Hilda's College of their current impacts attributed to meals from the Dining Hall. Then, 2) given these impacts, make suggestions for how St Hilda's could improve, based on the Conservation Hierarchy

The global food system is unsustainable. Agriculture is associated with 25% of humanity's total greenhouse gas (GHG) emissions, uses 40% of the Earth's land and 70% of the Earth's freshwater supplies*. In developed countries, changing our diets could have immense positive impacts on improving nutrient levels, lowering premature mortality rates and the environment. This is why impacts from food consumption are the focus of this handbook

Scientists had warned of the possibility of a pandemic, yet they were ignored… and scientists are currently warning us of the effects of the climate and biodiversity crisis which we are inflicting on the planet. The coronavirus crisis could be a turning point for humanity, where we reassess our relationship with the natural world and make efforts to avoid returning to business as usual

For over a decade, the World Economic Forum has been tracking the top five threats to humanity. In the past, issues like interstate conflicts, terrorism and cyber-attacks were among them… but this year, for the first time, all five were climate and biodiversity-related**

*Marco Springmann, Keith Wiebe, Daniel Mason-D'Croz, Timothy B Sulser, Mike Rayner, Peter Scarborough. 2018. Health and nutritional aspects of sustainable diet strategies and their association with environmental impacts: a global modelling analysis with country-level detail. The Lancet Planetary Health. 2(10), 451-461

**World Economic Forum, AlphaBeta. Jul 2020. New Nature Economy Report II: The Future of Nature and Business. www.weforum.org. http://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf

What is the Conservation Hierarchy?

“We all have a responsibility”

In order for humanity and the natural world that sustains it to flourish side-by-side, we must recognise the impacts we have on the planet in order to reduce them. This is particularly important because those in developing/ biodiversity-rich nations often suffer the most from the consumptive actions of developed nations and the chain of global actors that provide for them.

The Conservation Hierarchy is a framework applicable to individuals, communities, organisations and governments and can guide them towards net positive outcomes for nature (leaving it in a better state than it was before) via various lifestyle and systematic changes. It is being used to improve sustainability at Oxford University by the Oxford Partnership for Operationalising the Conservation Hierarchy (OxPOCH).

The Conservation Hierarchy helps us to:

- Understand our current and past impacts,
- Set meaningful targets to improve,
- Design effective interventions to reduce impacts, and
- Monitor outcomes to improve over time

The below image shows how to react to environmental impacts following the steps of the Conservation Hierarchy - 4Steps4TheEarth! Importantly, this prioritises actions that *prevent* harm to biodiversity over actions that attempt to *compensate* for biodiversity loss – similar to how ‘Reduce, Reuse, Recycle’ works.

The world’s road to recovery is an uphill slope. But the Conservation Hierarchy can provide a step-by-step framework that can guide all actors, from individuals to governments, towards more sustainable lives. Only with global cooperation will the road seem surmountable.

Visit https://conservationhierarchy.org for more information

#4steps4theearth

Importance of biodiversity

Changes in species populations are telling of total ecosystem health… and between 1970 and 2016, on average, worldwide populations of mammals, birds, fish, reptiles and amphibians have declined by **68%**… Furthermore, **75%** of the world ice-free land has been significantly altered by human activities and we have polluted most of our oceans*

Humanity and nature are more intertwined than many people know

“Everything we touch affects biodiversity”

Ecosystem services** are all the benefits nature brings to humanity; without which we cannot survive. Some examples of the vital ecosystem services that sustain us are pollination, photosynthesis to provide the oxygen we need and filter the air of carbon emissions, freshwater supplies, medicines, raw materials, flood control etc…
It’s been scientifically proven that degraded biodiversity reduces the functioning of ecosystem services and reduces their resilience to environmental pressures.
In fact, ecosystem services have an annual value of
***$125 trillion** for the global economy, yet nature does them for free…

Therefore, we should care deeply about biodiversity declines. Not only because we, as the most impactful species to ever live on this planet, have a responsibility to protect what’s left, but also because we need biodiversity to survive

*WWF (2020) Living Planet Report 2020 - Bending the curve of biodiversity loss. Almond, R.E.A., Grooten M. and Petersen, T. (Eds). WWF, Gland, Switzerland.
**Millennium Ecosystem Assessment (2005). *Ecosystems and human well-being: synthesis* (PDF). Washington, DC: Island Press. ISBN 1-59726-040-1. Retrieved 7 August 2014.
***Robert Costanza, Rudolf de Groot, Paul Sutton, Sander van der Ploeg, Sharolyn J. Anderson, Ida Kubiszewski, Stephen Farber, R. Kerry Turner, Changes in the global value of ecosystem services, Global Environmental Change, Volume 26, 2014, Pages 152-158, ISSN 0959-3780, https://doi.org/10.1016/j.gloenvcha.2014.04.002.

Methodology

How were the impacts of St Hilda's food consumption calculated?

In order to calculate the environmental impacts of food served at St Hilda's, food sales data from the canteen during Michaelmas 2019 and Hilary 2020 were paired with databases* containing the environmental impacts of various food products. These include impacts that occur throughout the food supply chain - from farm to fridge!

The environmental impacts that were included in this analysis were:

1. **Greenhouse gases (measured in kg CO_2e)**
   GHG emissions collectively contribute to climate change which involves global warming and the shifting of weather patterns. The planet is changing at a higher rate than numerous species can adapt, threatening many species with extinction.
2. **Land use (measured in m^2 of agricultural land)**
   Converting land for agriculture is one of the biggest causes of habitat and biodiversity loss worldwide!
3. **Water consumption (litres)**
   Water used to irrigate crops takes freshwater out of the local area and returns less to rivers and groundwater than it took. This leads to biodiversity loss especially in habitats sensitive to water changes such as wetlands and chalk streams.
4. **Eutrophication/ water pollution (in grams of nutrients leached into to water systems)**
   Eutrophication is the dense growth of algae on water bodies after excessive leakage of agricultural chemicals. The algae block light from photosynthesising aquatic plants and as the algae die, decomposers can deplete the water's oxygen content.
5. **Soil acidification (in grams of key acidifying nutrients)**
   Emissions cause the acidification of water vapour in the atmosphere. The acid rain that follows then lowers the pH of soil which damages plants and soil-dwelling organisms sensitive to pH changes.

For further information on the methods and assumptions used, contact Niamh at niamh.gray@st-hildas.ox.ac.uk

*Harrington RA, Adhikari V, Rayner M, *et al.* Nutrient composition databases in the age of big data: foodDB, a comprehensive, real-time database infrastructure. *BMJ. Open* 2019;**9:**e026652. doi: 10.1136/bmjopen-2018-026652
*Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science, 360(6392), 987–992.

IMPACTS

The next few pages are dedicated to displaying some key findings from the impact analysis

It begins with the overall greenhouse gas (GHG) emissions, water-use, land-use, water pollution and terrestrial acidification over the two terms. After that, it is explained that not all land and water loss is equal… biodiversity is a complex issue

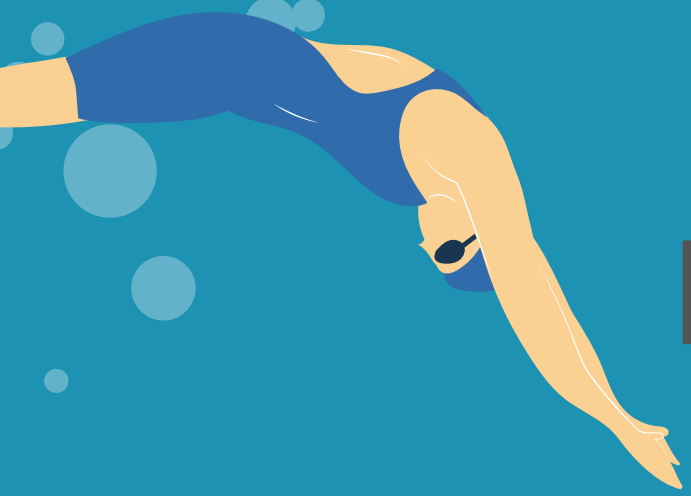
Next the different impacts of various meal types sold are highlighted and discussed

Then some stark differences between the impacts of beef and vegan/vegetarian mains are highlighted

I'll finish by summarising the effect switching to veggie roast dinners in Hilary term had on both the environment and sales

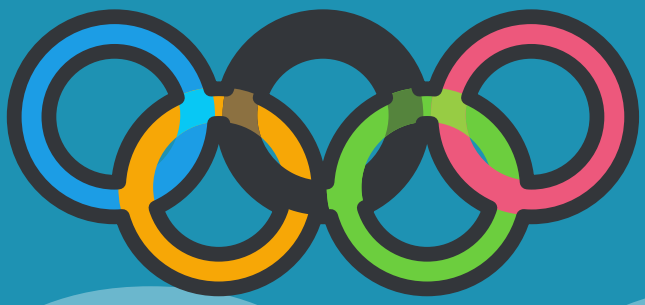
Food Served in Hall caused ~35,000kg CO_2 emissions...

That's equivalent to driving around the world 5 times!



USED THE SAME VOLUME OF FRESHWATER AS ALMOST...

2 OLYMPIC SWIMMING POOLS!

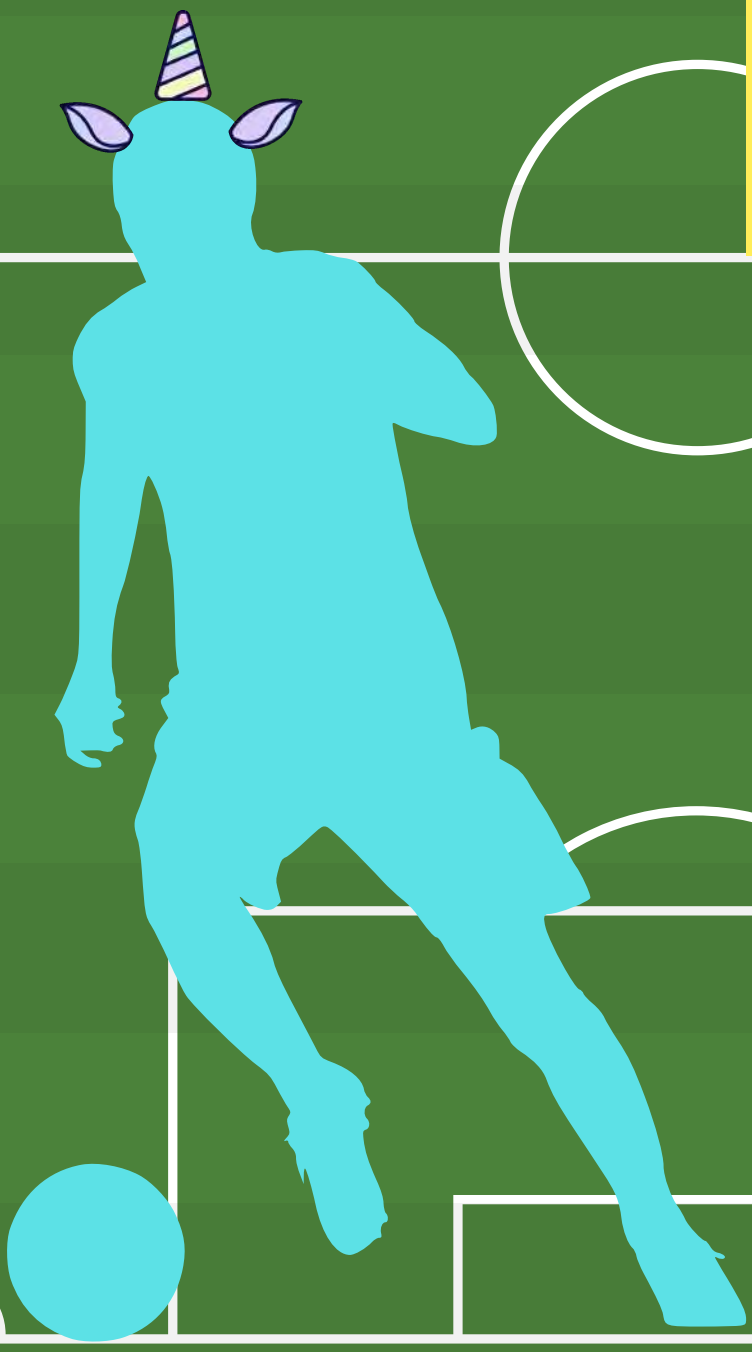


OVER

6 FOOTBALL

PIT HES

Of land...



Biodiversity - a complex issue...

Not all land is equal

When looking at land-use impacts, it's important to remember that not all land is equal.
The area of land Hilda's used is the cumulative total from locations all around the globe

An area of land cleared in the tropics is much more impactful than an equivalent area cleared in the UK. This is because tropical habitats are much more biodiverse. One example is the Brazilian state, Mato Grosso, which exports the most soy (a legume that produces beans) in all of Brazil. Regulations are in place to ensure deforestation is done responsibly, avoiding protected areas. Yet 95% of deforestation on soy farms in Mato Grosso, 2012-2017, was illegal under Brazilian law, and over 80% of this soy makes its way into the global market… and possibly our canteen!

'Grass-fed' meat and dairy sounds safe… but often means the livestock are fed on milk & grass for only part of their lives**. During winter months, they are given cattle feed which contains soy! So, if our beef, lamb and dairy aren't 'Pasture for life' we may be responsible for the illegal destruction of jaguar homes…

Coffee and tea also use biodiversity-rich land. And due to unsustainable farming practises, 60% of coffee varieties are threatened with extinction***

Not all water is equal

Again, the impact of water consumption for agriculture is highly dependent on local water scarcity… accounting for this, the impact of our water use would've been 22x larger!

*André Vasconcelos, Paula Bernasconi, Vinícius Guidotti, Vinícius Silgueiro, Ana Valdiones, Tomás Carvalho, Helen Bellfield, Luis Fernando Guedes Pinto. Jun 2020. Illegal deforestation and Brazilian soy exports: the case of Mato Grosso. Trase.Earth. Issue Brief 4. http://resources.trase.earth/documents/issuebriefs/TraseIssueBrief4_EN.pdf
**https://www.pastureforlife.org/where-to-buy/
***World Economic Forum, AlphaBeta. Jul 2020. New Nature Economy Report II: The Future of Nature and Business. www.weforum.org. http://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf

Main Meals Impacts

Redesigning menus will be one of the most powerful tools we as a college have to better our relationship with the natural world.

Therefore, given main meals come in categories according to the type of meat they contain/ dietary preference, it is crucial to understand the different impacts between these options so menus can be redesigned effectively.

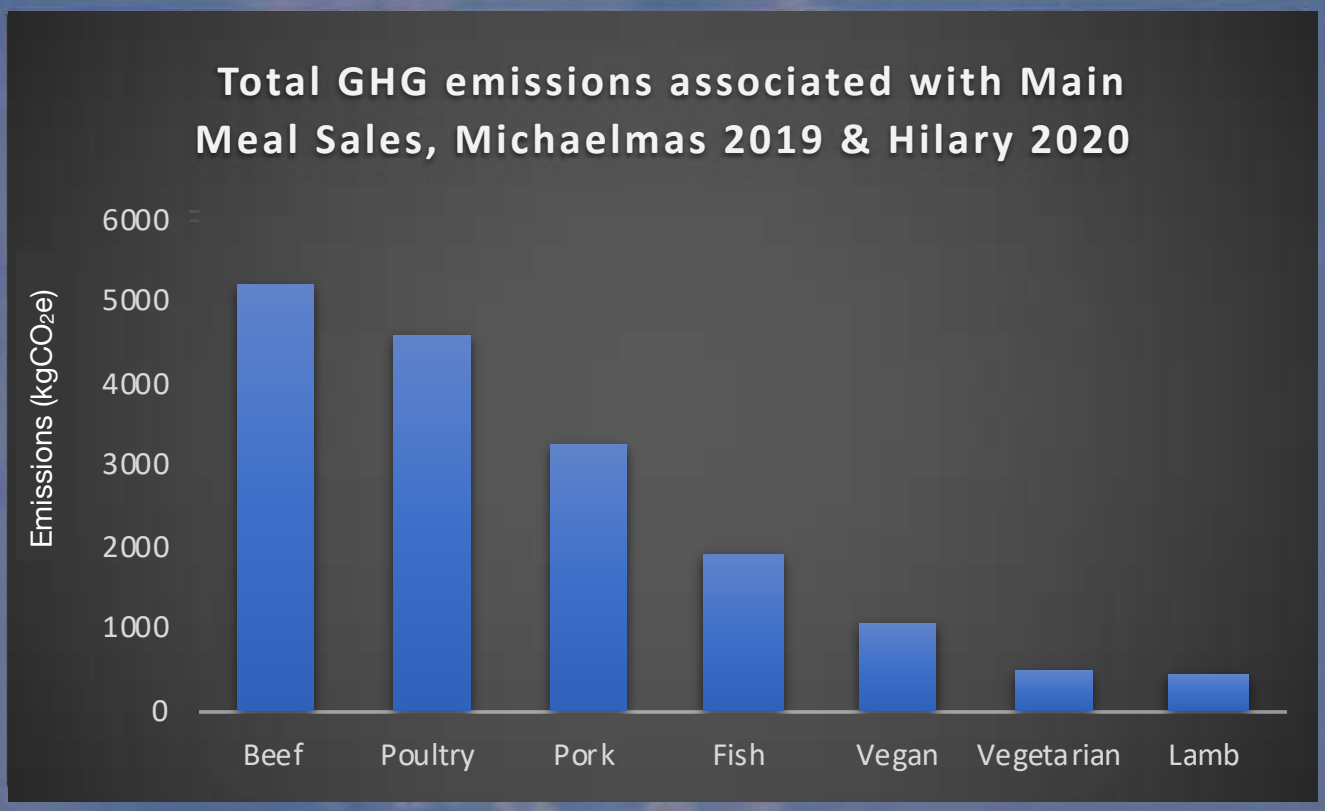
The graphs overleaf illustrate the environmental impacts of the main meals sold in Hall by Meal Category over the past two terms at St Hilda's. The indicators used are: GHG emissions, land-use and water-use, water pollution (eutrophication) and terrestrial acidification.

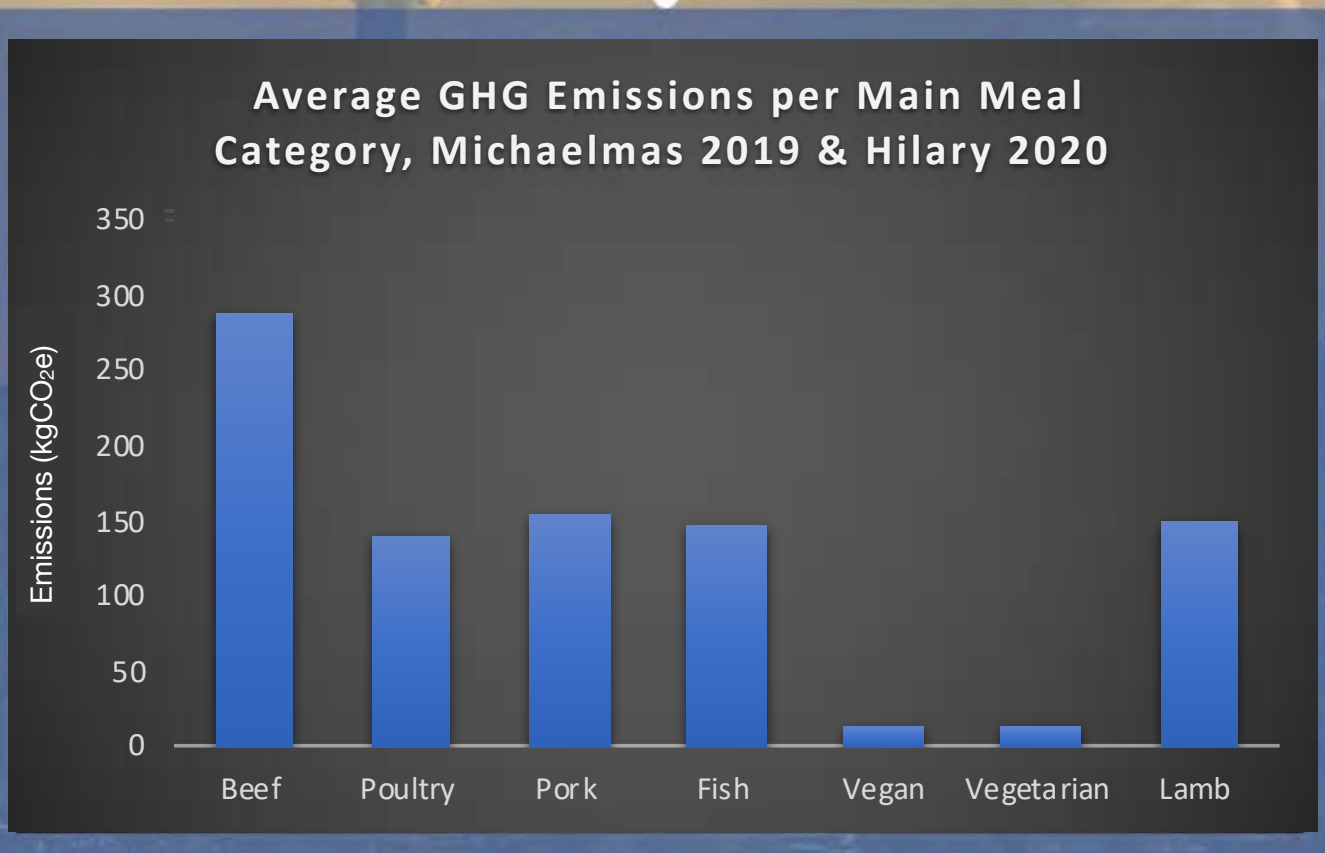
The Meal Categories in the first graph on each page are ordered from most to least impactful given the environmental indicator when totalled over the two terms.

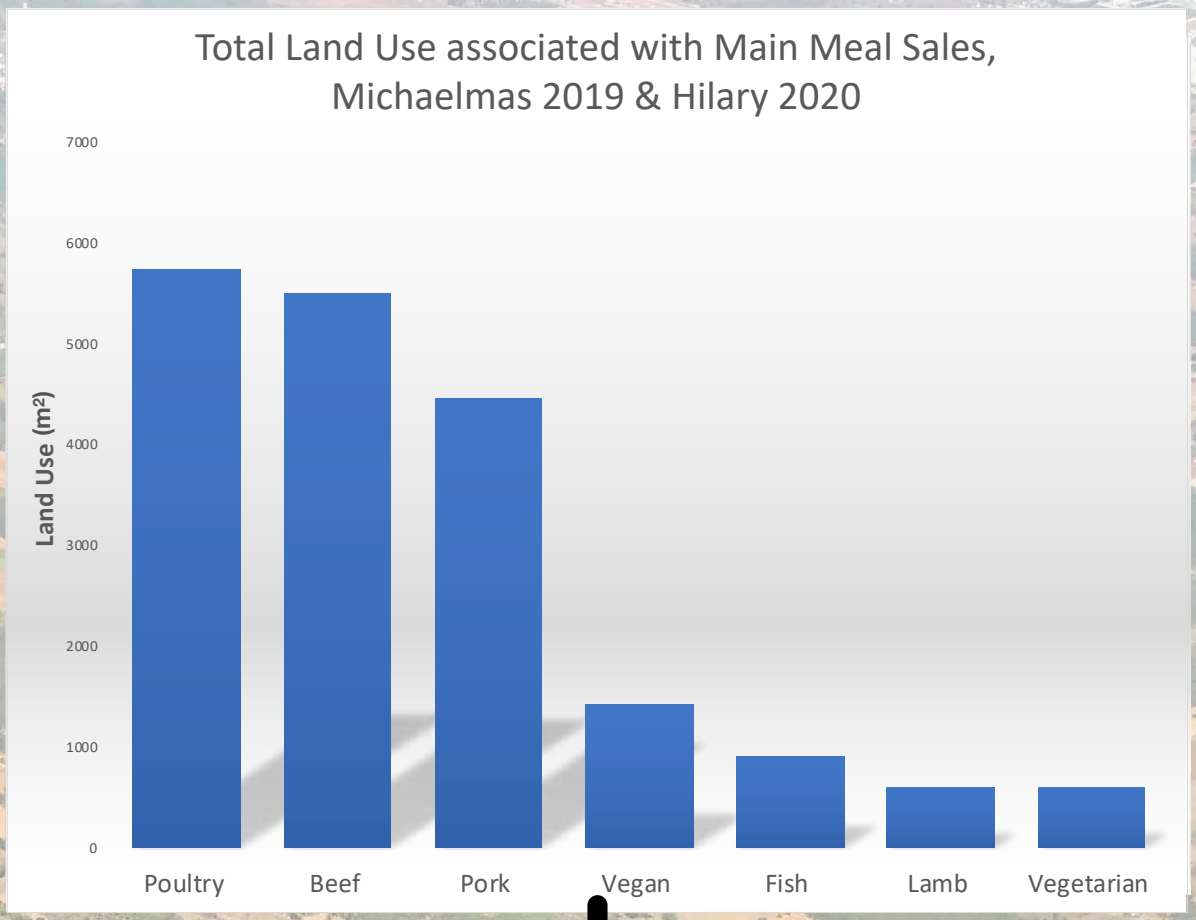
However, meals of each category (e.g. beef, fish, vegan…) were not offered in equal numbers on the menu. Therefore, the second graph on each page indicates the total impacts per category relative to the number of menu appearances. Hence, while the first graph illustrates our true impacts, the second one reminds us that the number of each meal offered heavily skews the distribution of the data.

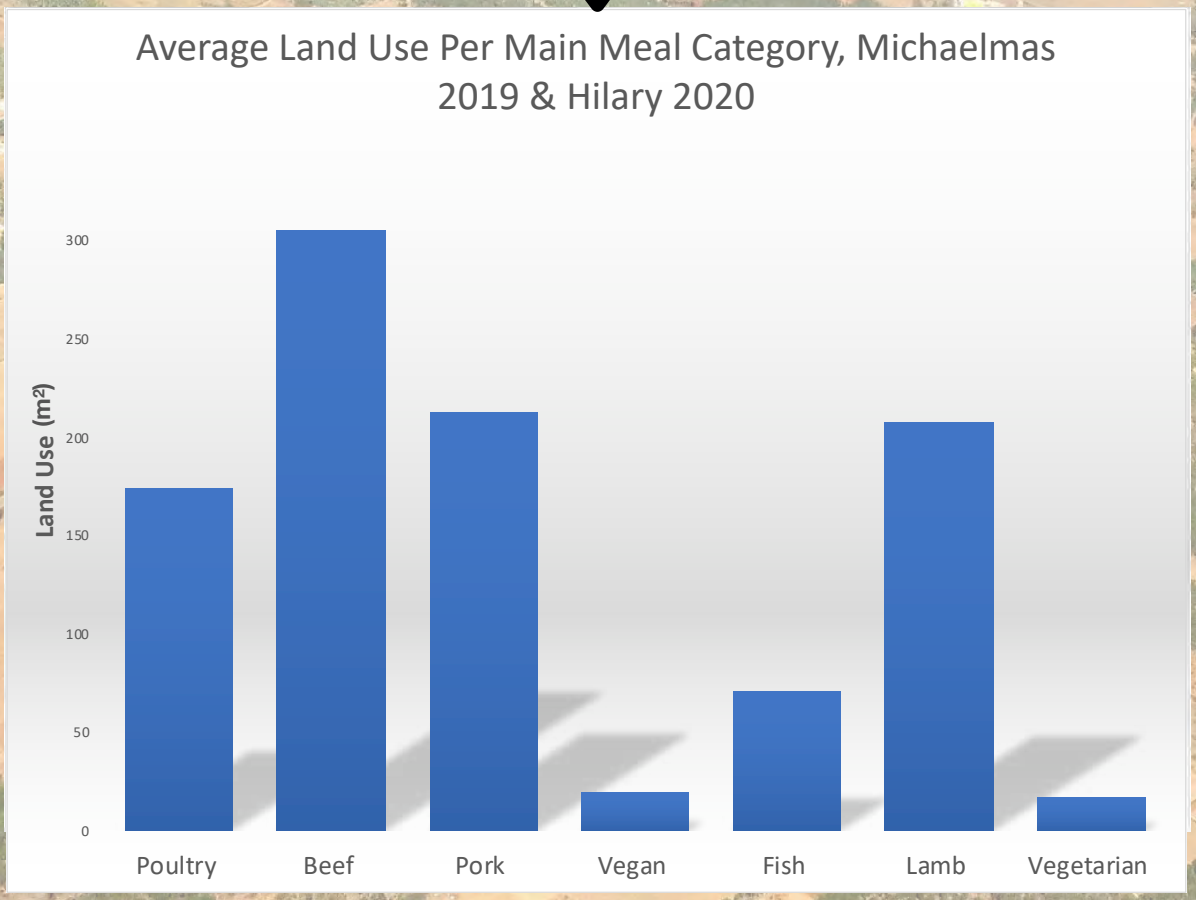
Notice how lamb mains have little overall impact, but this is because they were offered significantly fewer times than other meal types.

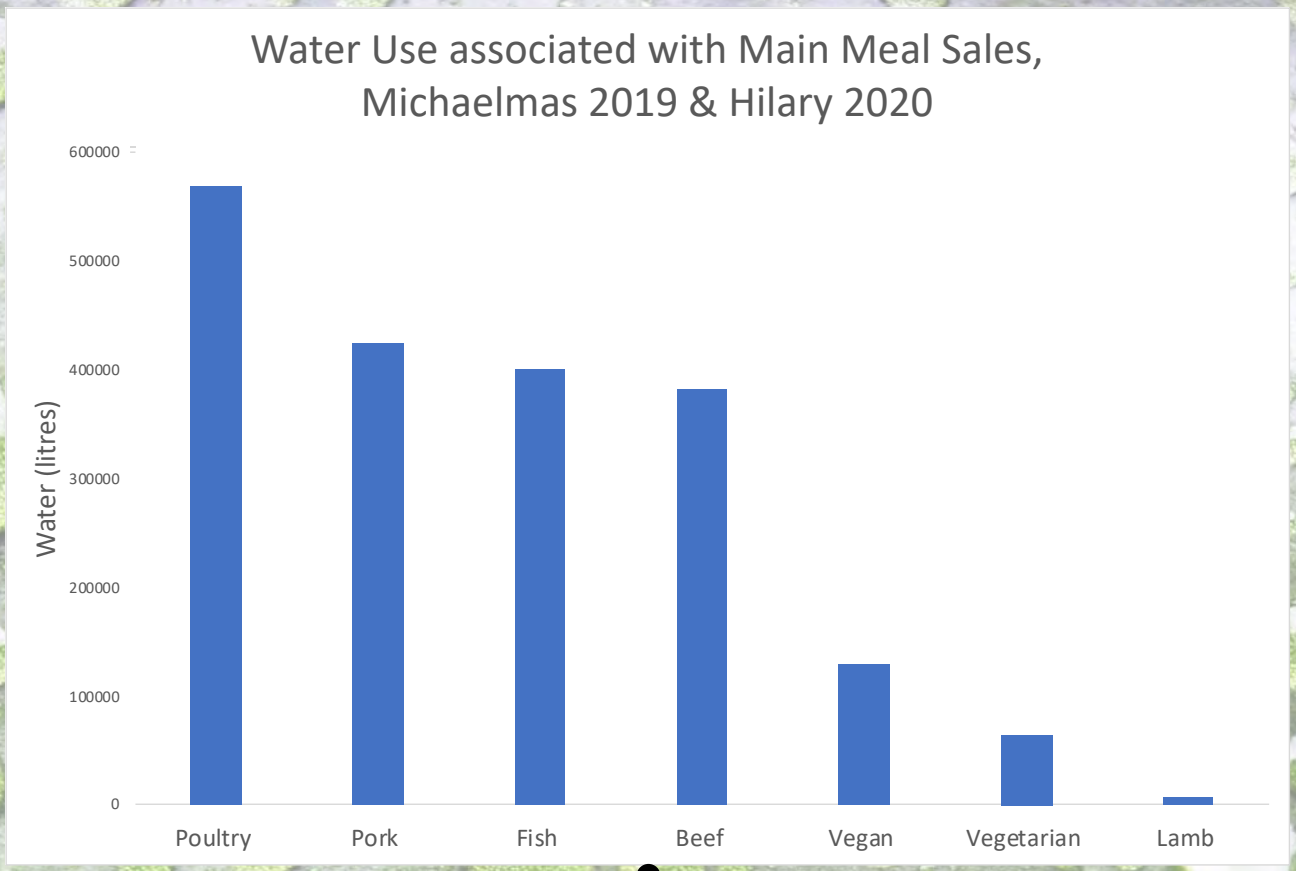
It's also worth noting that beef mains are consistently impactful whilst vegan and vegetarian mains are consistently of little impact, **especially** once the number offered is accounted for…

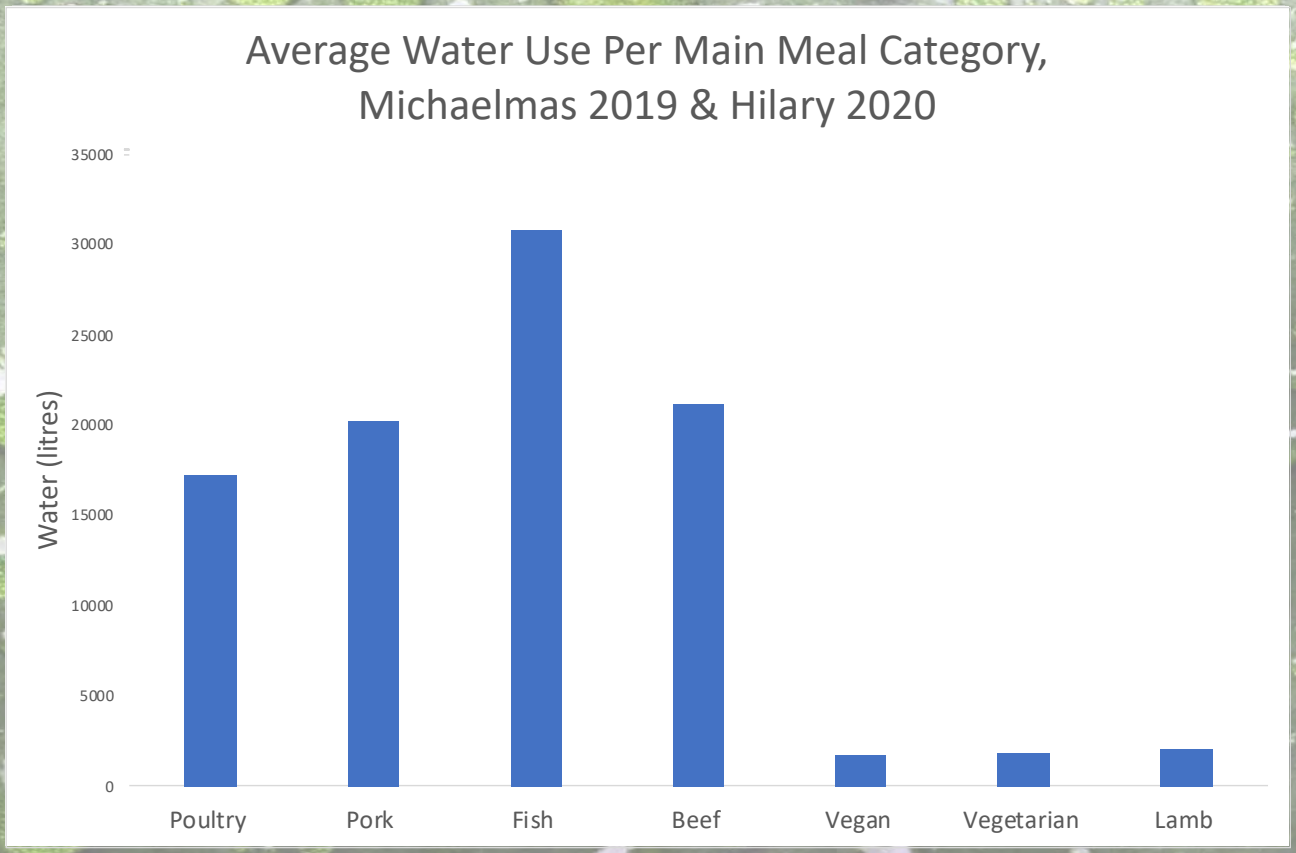

Total GHG emissions associated with Main Meal Sales, Michaelmas 2019 & Hilary 2020
Emissions (kgCO2e)
6000
5000
4000
3000
2000
1000
0
Beef
Poultry
Pork
Fish
Vegan
Vegetarian
Lamb


Average GHG Emissions per Main Meal Category, Michaelmas 2019 & Hilary 2020
Emissions (kgCO2e)
350
300
250
200
150
100
50
0
Beef
Poultry
Pork
Fish
Vegan
Vegetarian
Lamb

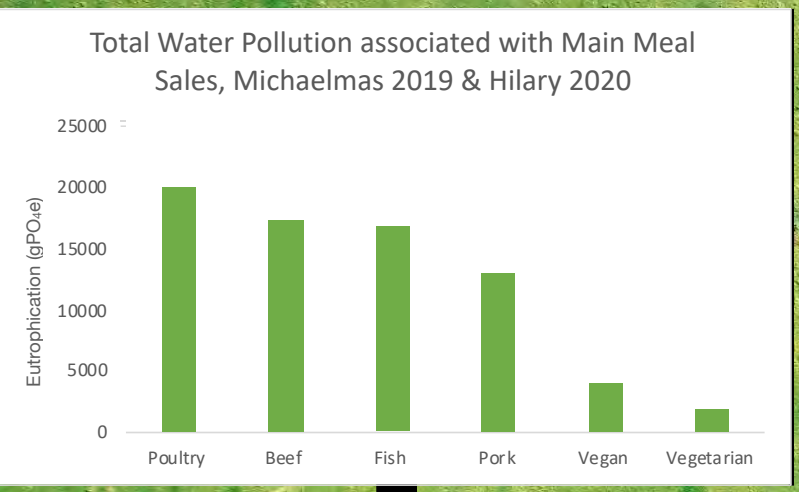

Total Land Use associated with Main Meal Sales, Michaelmas 2019 & Hilary 2020
Land Use (m²)
7000
6000
5000
4000
3000
2000
1000
0
Poultry
Beef
Pork
Vegan
Fish
Lamb
Vegetarian

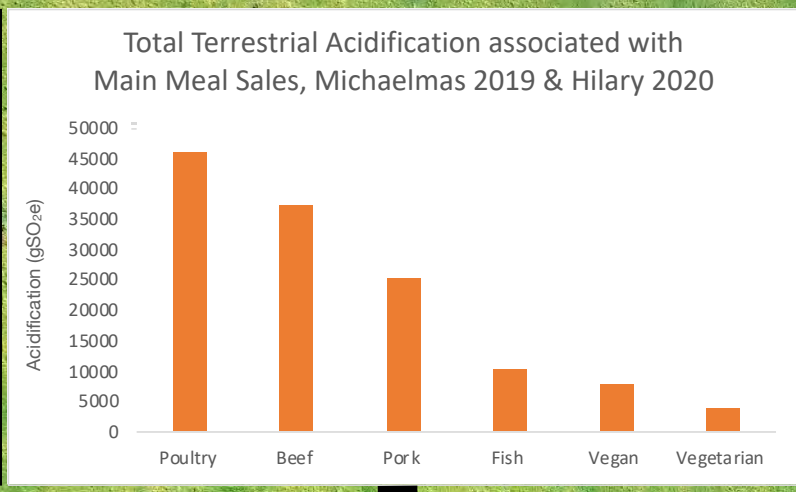

Average Land Use Per Main Meal Category, Michaelmas 2019 & Hilary 2020
Land Use (m²)
300
250
200
150
100
50
0
Poultry
Beef
Pork
Vegan
Fish
Lamb
Vegetarian

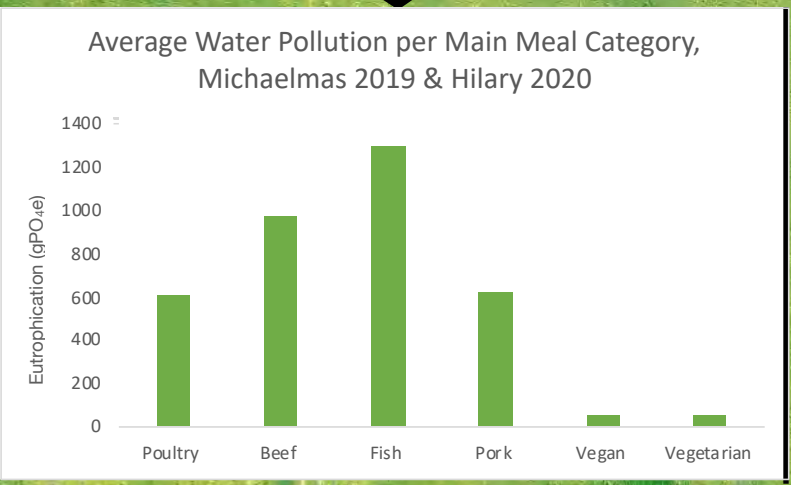

Water Use associated with Main Meal Sales, Michaelmas 2019 & Hilary 2020
Water (litres)
600000
500000
400000
300000
200000
100000
0
Poultry
Pork
Fish
Beef
Vegan
Vegetarian
Lamb

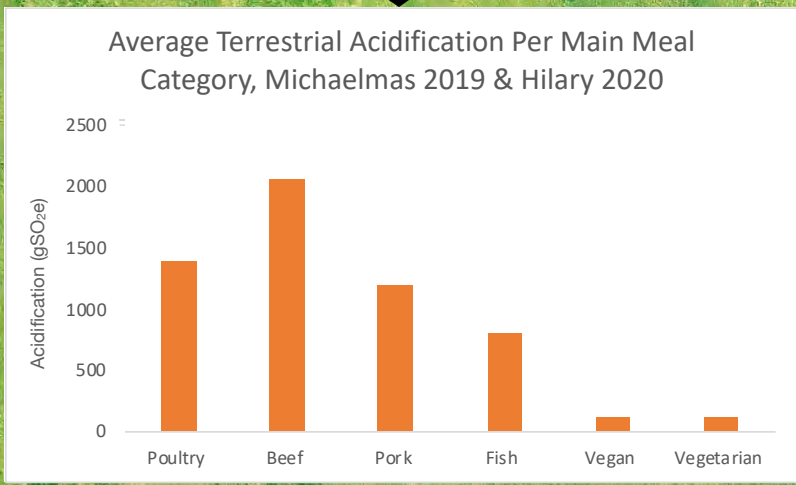

Average Water Use Per Main Meal Category, Michaelmas 2019 & Hilary 2020
Water (litres)
35000
30000
25000
20000
15000
10000
5000
0
Poultry
Pork
Fish
Beef
Vegan
Vegetarian
Lamb

Water Pollution and Terrestrial Acidification









Although Beef Mains accounted for...

9%

of total mains sold..

They were responsible for...

32%

Of total GHG emissions

However...

Vegan Veggie mains accounted for...

54%

of total mains sold...

But they were only responsible for...

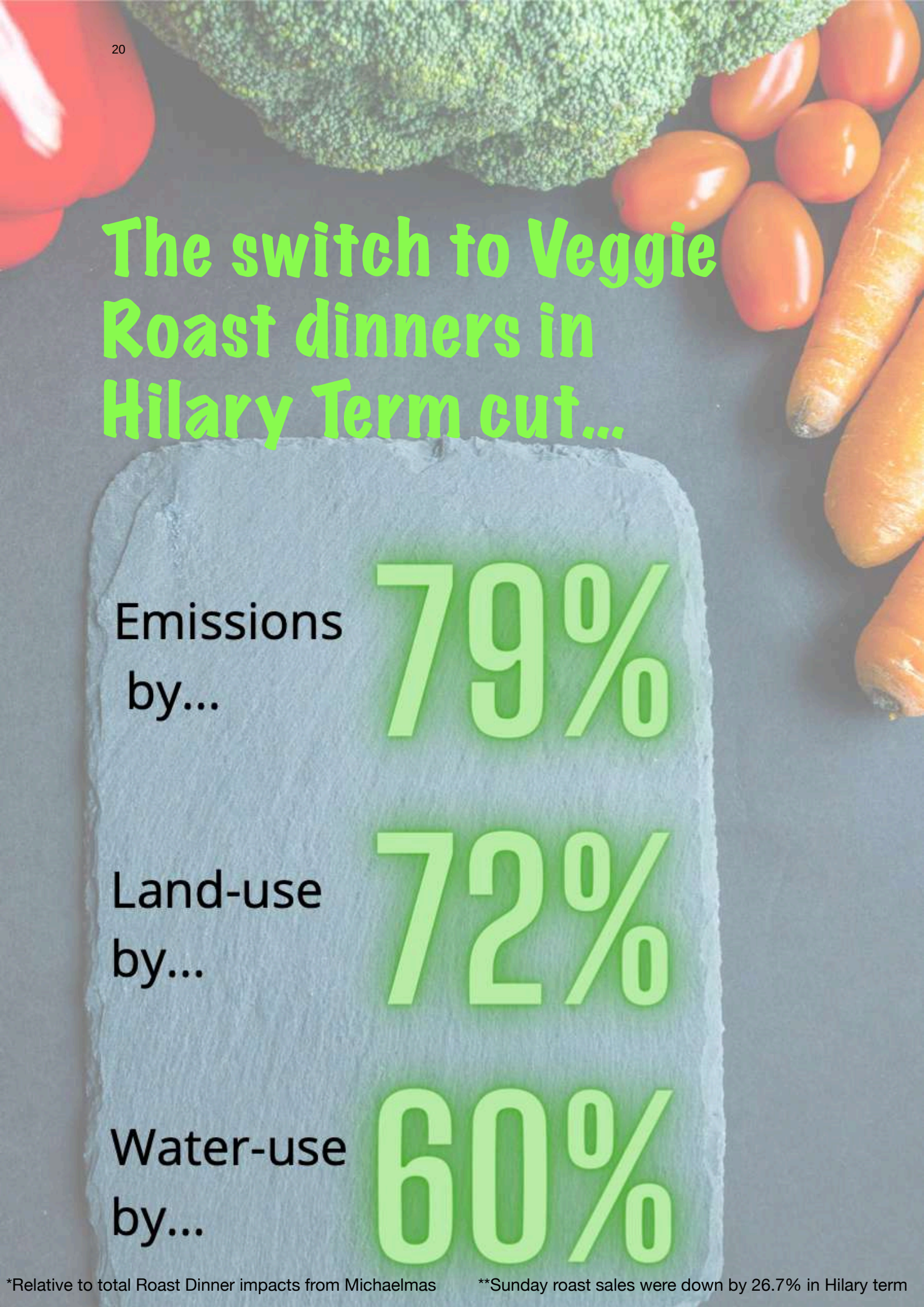
9%

of total GHG emissions

ROAST DINNER

The transition to vegetarian roast dinners in Hilary term significantly reduced the environmental impact values associated with the College s food sales

Next, we will explore how this major shift in the menu changed our impacts as well as its effect on sales...



The switch to Veggie Roast dinners in Hilary Term cut...

Emissions by... 79%

Land-use by... 72%

Water-use by... 60%

*Relative to total Roast Dinner impacts from Michaelmas

**Sunday roast sales were down by 26.7% in Hilary term

However...

Those attending Sunday roast was calculated by assuming #mains sold = #students that showed up (assumes each student purchased one main each)

If this is true, total sales of roast dinners in Hilary term was down by 26.7% compared to Michaelmas term roasts*…

This suggests that the meat-free day put some people off going to hall (all else being equal)

If those who didn't eat in Hall on Sundays in Hilary ate meat roasts themselves elsewhere, emissions, land-use and water-use would've only been cut by 72%, 64% and 45% respectively

Nonetheless, these figures are still impressive. In fact, 60% of people who ate meat roasts in Michaelmas switched to vegetarian roasts in Hilary

And this **did** significantly improve Hall's emissions, land and water-use

But this decrease in sales data suggests opportunity for intervention. I will discuss opportunities for this in the coming sections

*Total sales of main meals during the week were actually up by 13% in Hilary term compared to Michaelmas term. Hence it's assumed that the decreased sales in Hilary term are due to roasts going vegetarian and not coronavirus. If it was, sales during the week should've been down as well.

Steps for Improvement

Interventions that could be implemented at St Hilda's to reduce the environmental impacts of our food consumption are described next. These are separated into the four steps of the Conservation Hierarchy - refrain, reduce, restore, and renew

The recommendations have been lifted from the World Resources Institute (WRI) playbook. This is a handbook that collected interventions from scientific literature and weighted them by feasibility when interviewing experts in the food industry. They came up with their top 23 'behaviour change' strategies, usable by anyone working in the food service industry

Interventions that 'refrain' from or 'reduce' impacts should be considered first, before interventions that restore or renew. This is because avoiding the impacts in the first place is less environmentally risky than having to compensate for them

Sophie Attwood, Paula Voorheis, Cecelia Mercer, Karen Davies and Daniel Vennard, Jan 2020, Playbook for Guiding Diner Toward Plant-Rich Dishes in Food Service, World Resources Institute. www.WIR.org ISBN 978-1-56973-971-6. https://files.wri.org/s3fs-public/19_Report_Playbook_Plant-Rich_Diets_final.pdf

Note that the reductions reported here were calculated using data on main meals only… **Excluding** impacts from sides, starters, desserts, breakfast etc…

Refrain

This is the first and most effective step to reduce our impacts on the natural world

1. **Refrain from consuming the most impactful foods…**
   - A. **Replace all beef mains with vegetarian mains**
     - If any intervention is to be acted on in this book, this first one would be the most meaningful
     - According to the data, such an intervention would mean…
     - **29% reduction in GHG emissions**
     - **29% reduction in land use**
     - **20% reduction in water use**
     - **23% reduction in eutrophication**
     - **26% reduction in acidification**
     - Given beef mains account for ~30% of main meal impacts, these reductions are VERY impressive indeed
   - B. **Replace all beef mains with poultry mains**
     - This intervention could replace the previous
     - According to data, this intervention would result in…
     - **16% reduction in GHG emissions**
     - **13% reduction in land-use**
     - **4% reduction in water use**
     - **9% reduction in eutrophication**
     - **9% reduction in acidification**
     - HOWEVER, as you can see from the estimated outcomes of each intervention, the reductions in impact of 1B are 20-55% as effective as 1A

C. Replace 50% of scheduled poultry mains with vegan mains

- This could be combined with interventions 1A or 1B
- 12% reduction in GHG emissions
- 13% reduction in land-use
- 12% reduction in water-use
- 12% reduction in eutrophication
- 15% reduction in acidification
- Although poultry mains were not the most impactful category, they were consistently one of the worst due to the sheer number sold. So, intervention into this may be needed

D. Silent Plant-based days

- In order to avoid losing 26.7% of diners as happened in meat-free roasts, further meat-free days could be completely unannounced before terms and not drawn attention to in menus released on UPAY
- If step 1A (omitting beef from menus and replacing them with vegetarian mains) is done, meat free days could be once every two weeks, but if not, there could be a silent meat-free day every week
- Just one extra meat-free day a week would've reduced GHG emissions, land-use, water-use, eutrophication and acidification by 8%

Reduce

The Reduce step is all about reducing impacts as much as possible where some impactful practices are inevitable

2. **Reduce the amount of meat in a meat dish**
   - A. **Substitute half the mass of chicken in Indian curries for chickpeas**
     - **This would almost halve the impacts of curry dishes and provide diners with more of their 5-a-day**
   - B. **In other curries where substituting with chickpeas isn't tasteful, use tofu, other pulses or Quorn pieces. For example, half tofu in chicken sweet & sour and lentils in beef bourguignon/ lamb hotpots etc…**

3. **Put plant-based options on first on self-service display**
   - **Makes this option visible first, so students view them more often instead of immediately choosing the meat-option**

4. **Improve appearance of plant-based dishes**
   - **Use allotment to grow edible flowers/ herbs to garnish veggie options**

5. **Use appealing language to highlight benefits of plant-based dishes**
   - **Highlight taste, sound, touch and smell**
   - **'Succulent', 'Slow-simmered', 'Chef's recommendation'**
   - **Background music in-keeping with country of origin on the plant-based option**
   - **Highlight country of origin in the name 'Cuban Black bean Soup instead of 'black bean soup'**
   - **'Vegan', 'Vegetarian', 'Healthy', 'Light', and 'low-calorie' don't in fact motivate diners to choose these options*. So, place 'Vegetarian' or 'Vegan' in the description of meal (not title)**

6. **Run cross-product promotions on plant-rich dishes**
   - **Buy 10 portions of veg, get 11th free**
   - **If meal (including starter, side, main and desert) is vegan, give them 25% off**

*Bacon, L., J. Wise, S. Attwood, and D. Vennard. 2018. "The Language of Sustainable Diets: A Field Study Exploring the Impact of Renaming Vegetarian Dishes on U.K. Café Menus." Technical note. World Resources Institute. https://www.wri.org/publication/ language-sustainable-diets.

7. **Contact suppliers and ensure all beef, lamb and dairy products were pasture-fed - 'Pasture for Life'**
   - During the winter months, many cattle are kept indoors and fed cattle feed which contains palm oil which is causing widespread deforestation (much of it illegal) in the Amazon
   - Surprisingly, 'grass-fed' only means the animal was fed with grass for part of their lives
   - Could consider changing suppliers if it's found their products aren't pasture-fed

8. **Provide pre-plated plant-based options**
   - This makes them more convenient options and likely to be selected

9. **Host vegetarian formals to raise awareness**
   - This may encourage people to choose plant-based in the future

10. **Bring diners back to Veggie Sunday Roasts**
    - Could incorporate options 4 and 5
    - Promotion - if you attend all Sunday roasts in a term, get a free dessert in 7th week roast

11. **Rename Meat-free Sunday Roasts to 'Sustainable Sunday Roasts'**
    - Studies show words such as 'meat-free', 'vegetarian' and 'vegan' reduce the likelihood that diners will choose a given meal*
    - The impacts of this change were impressive (page 17). So, it would be beneficial to continue this

12. **Rename 'Vegan Soup of the Day' to the type of soup it is**
    - Use appealing language, highlighting country of origin, smell, taste and texture instead of 'vegan'
    - Remove 'vegan' from the title as some people may find it off-putting

13. **Reduce the demand for food from suppliers**
    - Grow own herbs and vegetables in the herb garden/ allotment
    - This will reduce impacts attributed to us as it'll cut emissions from transporting extra food we now provide for ourselves
    - Alternatively, may reduce our food miles if fewer deliveries are needed

14. **Commit to certified, biodiversity-friendly sourcing**
    - For example, food with a rainforest alliance badge
    - Vital given biodiversity impacts of illegal deforestation

*Bacon, L., J. Wise, S. Attwood, and D. Vennard. 2018. "The Language of Sustainable Diets: A Field Study Exploring the Impact of Renaming Vegetarian Dishes on U.K. Café Menus." Technical note. World Resources Institute. https://www.wri.org/publication/ language-sustainable-diets.

Restore

The Restore step is where one restores the species and ecosystems that have been harmed directly by one's actions once they're done. It's about compensation.

In the context of food, this step is largely about what we do with leftover food

15. **Post reminder to students as they walk in to 'take what they need'**
    - This will reduce food waste being scraped into the bins

16. **Continue to flash-freeze unused meat and reuse it the next day**
    - As no extra purchasing was required for the meal with reused meat, it may be fair that the meal made with leftovers should be cheaper than it would've been before leftovers were used
    - This will ensure leftovers are consumed as the cheaper price will be appealing to students

17. **Donate excess food to a food redistribution charity**
    - I could organise donations of food left in kitchens as has been done in previous years

18. **Compost suitable food waste that cannot be reused**
    - Reusing our compost for growing our own food in the allotment/ herb garden will reduce our own impacts
    - Grass cuttings from college grounds may also be composted

Renew

The final step, Renew, is where one makes up for negative impacts by investing in positive actions elsewhere. This step is about making an explicitly positive difference.

19. Invest in habitat restoration on farms we are directly purchasing from

- Reach out to suppliers and ask how we can help

20. Invest in increasing biodiversity in the new allotment/ herb garden by planting native herbs/ plants and adding bug hotels

- Vegetables patches do not have to be neat and organised. Mixing in lots of different kinds of flowers will attract pollinators and soil-dwelling organisms that will keep the soil healthy

21. Commit to fair-trade sourcing and fair-trade commercial items sold in fridge/ freezer (e.g. drinks, chocolate bars and ice cream)

- Could reduce the social impacts of our supply chain
- Some money from fair-trade products is invested in habitat restoration, reducing our environmental impacts too

Money for investment could come from collections at E&E events in collaboration with the JCR charity officers
If 19 or 21 are considered, the College bursar could also be involved

I also understand that the College allotment was discussed last year, but not finalised. So, interventions that mention the allotment/ herb garden are dependent on that going ahead

Proactive Actions

One can consider proactive actions once all the steps of the conservation hierarchy have been completed and the damage within your own food system is rectified

Why 'proactive' is important...
The previous 4 steps are 'reactive' and prevent declines in biodiversity. If we want to live in a better world, we need to take proactive steps that lead us there

Proactive actions that better global food systems as well as extra add-ins are included

22. "Adopt" part of the world where our food comes from and donate to sustainable farming initiatives there
    - This food-related action would help humanity to move towards more sustainable farming

23. Publicise the commitments Hilda's are making, encouraging other colleges to follow
    - College staff could work with other colleges so they may learn from what Hilda's has done
    - Contact and lobby food suppliers to let them know we would like better standards for sustainability and sourcing

24. Invest in wider, nature-based climate solutions
    - If chosen, discussion with the bursar would be needed to locate room in the college budget
    - Students could also contribute when events are run where donations are collected

25. Place bug hotels around college gardens
    - We could collaborate with Oxford Plan Bee
    - Planning on doing an E&E x Welfare event where students make bug hotels and place them around college

26. Plant more native plants in college gardens
    - This will increase biodiversity and support native wildlife

27. Host educational events/ post educational material to make students aware of the environmental impacts of food consumption
    - This is something I, as the E&E rep, will organise

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Please place your trays in the racks provided after you have finished your meal. Thank you.

The Bistro Team

COVID-19 Solutions

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Please place your trays in the racks provided after you have finished your meal. Thank you.

The Bistro Team

Hall must comply by the new governmental and university rules to prevent spread of coronavirus in places where food is served

Some 'new normals' include…

1) There is a new one-way system in the Dining Hall
2) The Dining Hall has a capacity of 80 with a further 70 seating capacity located in a marquee
3) All food will be served by staff behind Perspex screens
4) Cutlery will be rolled in recyclable napkins
5) All sauces will be dispensed in to paper 2oz pots which are recyclable
6) Salt and pepper are in paper sachets
7) There is a new 'Order Ahead' module available within UPAY to allow students and staff to take food away from Hall. This will be served in recycled paper and card containers
8) The Dining Hall is equipped with sanitising stations which are refillable

Ideas for ensuring students cooperate at clearing stations (as requested):

Ernest-Jones et al. published a study on cooperative behaviour in University Canteens using images of watching eyes to nudge students to clean up after themselves. They found that putting up images of eyes in the cafeteria significantly reduced the amount of littering than if images of flowers were put up by ~50%*.
Therefore, Hilda's could adopt a similar intervention at the clearing stations.
A poster similar to the top left could be placed over the recycling and general waste bins, stating "Please place napkins, plastic pots and sachets ONLY in the recycling bin. Thank You."

The recycling bin could be put first in the clearing station. This may ensure the eyes are seen first. So, students immediately cooperate, and recyclable material will be less likely scraped into the food bin and vice versa.
I could also post reminders to cooperate on the St Hilda's JCR page.

Distributing fewer condiments may reduce the opportunity for contamination of bins. To reduce the distribution of condiments upon collecting a meal, they could only be given out on request by the student. This may ensure un-used sachets and pots are not dumped, wasting food and money.

*Max Ernest-Jones, Daniel Nettle, Melissa Bateson, Effects of eye images on everyday cooperative behavior: a field experiment, Evolution and Human Behavior, Volume 32, Issue 3, 2011, Pages 172-178, ISSN 1090-5138, https://doi.org/10.1016/j.evolhumbehav.2010.10.006.

Summary

This Handbook highlighted St Hilda's College's impacts attributed to food consumption in the dining hall and, using the Conservation Hierarchy, suggested ways forward to improve the College's sustainability

The coronavirus pandemic brought the world to a halt and the shockwaves of this crisis will be felt for many years to come

Yet, it presents an opportunity for us to reassess our relationship with nature. Changing and adapting our diets and food systems will be an essential part of this, and this guidebook offers a way for St Hilda's College to lead the way to a more healthy and sustainable future

Please email Niamh at niamh.gray@st-hildas.ox.ac.uk for any further information

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