

## Reducing the environmental impact of food consumption in university restaurant

*Sustainability is a hot topic today, but how far are we willing to go when it effects our day to day lives? And how do we even know which are the relevant actions to take? At the restaurant of the Free University of Brussels (Vrije Universiteit Brussel), the first steps towards a more sustainable menu are already taken, but how should we go on? And who should we convince to make it happen?*

At the VUB, different measures are evaluated to comply with the Paris Agreement climate goals. One pillar to achieve these goals is the VUB restaurant, serving 1500 hot meals to students and staff every day. As food production is currently responsible for around 25%-30% of the global CO<sup>2</sup> emissions<sup>1</sup>, changing the menu at the restaurant can have a substantial impact on the global sustainability of the VUB as a whole. The responsible at VUB restaurant are already aware of the sustainability aspect of their choices, as is shown on their [website](#): there is a specific page dedicated to sustainability, explaining their main focus and linking true to more detailed information. In short, they say to play a leading role by:

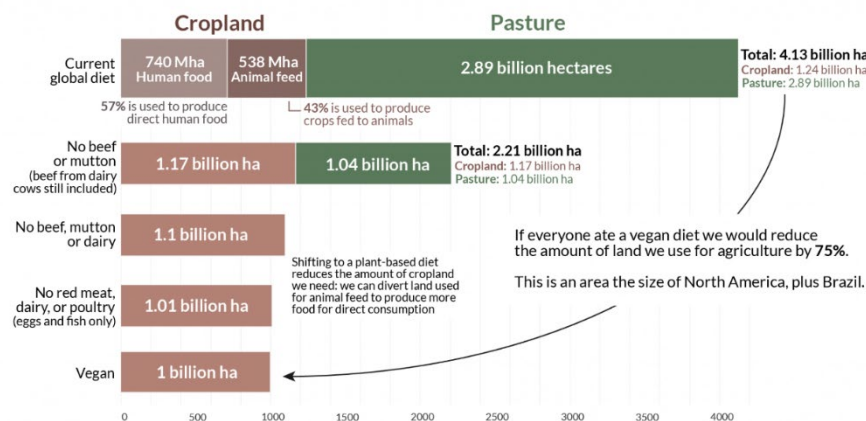
- offering healthy, ecological and affordable meals with less animal proteins;
- taking part in fair & local trade of seasonal products;
- instilling awareness in visitors;
- lowering energy-use and working on waste-reduction.

Although these efforts already show some effect: 20% of meals served are vegetarian or vegan, 25% in case of special campaigns (e.g. Days Without Meat or Low Impact Week). For comparison: about 17% of hot meals eaten in Belgium are vegetarian<sup>2</sup>.

### Global land use for agriculture across different diets

Global agricultural land use is given for cropland and pasture for grazing livestock assuming everyone in the world adopted a given diet. This is based on reference diets that meet calorie and protein nutritional requirements.

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Serving more vegetarian or vegan food has an important impact on the sustainability of a restaurant. As shown in figure 1, cutting out beef and mutton already reduces the land requirement for agriculture with 46%, additionally cutting out dairy enlarges the effect up to 73%.

Figure 1 Global land use for agriculture across different diets (data source: Joseph Poorr & Tomas Nemecek (2018). Reducing food's environmental impacts through producers and consumers. Science)

<sup>1</sup> How much of global greenhouse gas emissions come from food? Estimates of food emissions can range from one-quarter to one-third. Where do these differences come from? by Hannah Ritchie March 18, 2021

[How much of global greenhouse gas emissions come from food? - Our World in Data](#)

<sup>2</sup> Own estimation based on a study done by iVOX, commissioned by EVA vzw [Plantaardige voeding in de lift](#) · [EVA maakt het plantaardig \(evavzw.be\)](#)

These same food groups also have an important impact on CO<sup>2</sup> equivalent emissions, mainly beef (beef herd), which emits 10 times as much as poultry and over 100 times as much as root vegetables or apples, as shown in the picture below.

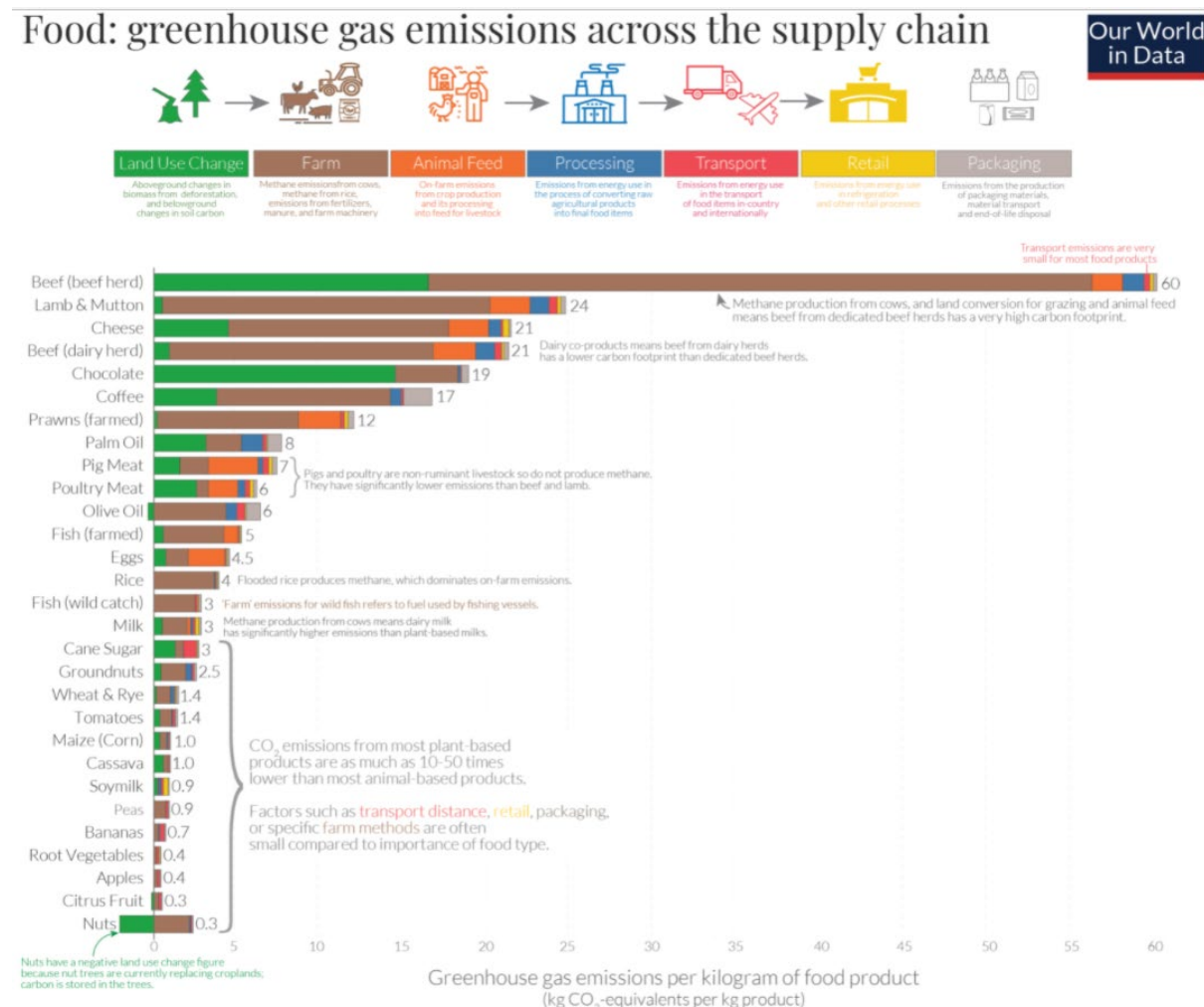


Figure 2 Food: Greenhouse gas emissions across the supply chain (source: Poore and Nemecek (2018) Reducing food's environmental impacts through producers and consumers. Science)

Based on these numbers, we can state that reducing the amount of meat, especially beef, served at the VUB restaurant, can greatly reduce its environmental impact. As universities have a strong impact on developing the ideas and views of their students, this impact can even extend beyond the university walls and create a change in the larger society.

When questioned, VUB students and staff proved to be not strictly against a strong reduction of the meat offered at the restaurant (note that most of the people questioned were involved in sustainability research to some extent and as such might be more sensitive to the sustainability aspect of meat eating). Not serving any meat at all however was perceived by some as going too far, stating this would 'reduce my choice of flavours' or 'would feel too pushy, so I would rebel'. Others referred to the fact that this should simply not be the priority, but the university should first focus on reducing the amount of travels made by staff and switch to 100% green energy for electricity and heating. Only a minority stated that an all-vegetarian restaurant would make them go eat elsewhere altogether.

During our conversations with staff and students, different nudging techniques were suggested. Some people thought of more financial incentives (making meat dishes significantly more expensive than

vegetarian dishes), other would work more on intrinsic motivation by for example displaying CO<sup>2</sup> impact of each dish clearly on the menu. Others would use more subtle techniques such as giving the vegan and vegetarian dishes a more prominent place in the restaurant or putting them next to the fries to ensure high visibility.

To conclude, we can state that there is quite a large potential to further strengthen the offer of more sustainable food at the VUB restaurant. Going full vegan or vegetarian might be a step too far at this point, but there clearly is a strong support for taking further steps in that direction. How far the restaurant can go today and what is needed to get there is an interesting topic for further research.

Igor Vervoort