Plant-based catering at Utrecht University

University Rebellion Utrecht

Policy Brief March 2021

To: the Executive Board of Utrecht University

1. Introduction

Supplying a population of eight billion people with sufficient food takes its toll on planet Earth. Agriculture and food production account for sustainability issues such as greenhouse gas emissions, land degradation as well as water scarcity (Foley et. al, 2011). Natural resources and ecosystem services are being depleted at a rapid pace in order to produce enough food to satisfy our growing numbers and hunger alike. Furthermore, the unequal distribution of yield from these agricultural practices results in an overproduction and -consumption of food in the global north, while many other nations in the world face serious issues of malnourishment (Mulligan, 2015).

- **Our current food system is unsustainable**
- **Plant-based food on campus can be a part of the solution**

In order to ensure equal and environmentally sustainable access to food resources for everyone on the planet, for both current and future generations, **there need to be fundamental changes to the present agricultural and food production system.** One aspect of this change is to ensure a more effective use of energy and resources in agriculture (UN). This policy brief focuses on how Utrecht University can contribute to meeting this goal by **adopting a plant-based menu for all food vendors on university premises.**

2. Choosing what we eat

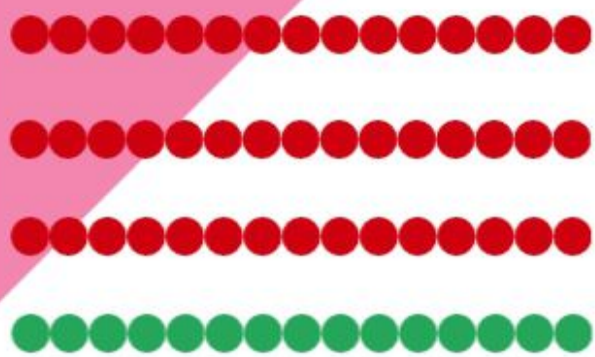
Some agricultural practices put more stress on the natural environment than others. Products from animal origin tend to be more harmful for the environment than plant-based products in many ways. Firstly, practicing animal husbandry on an industrial level produces unsustainable amounts of greenhouse gases. In 2014, **agriculture was estimated to be the cause of 24% of all greenhouse gas emissions**, and the animal industry accounted for approximately 14 of these percentage units (Smith et. al, 2014). This means that the environmental impacts of agriculture can be lowered by reducing the number of animals in the industry. In order to be in line with the Paris Agreement, human-induced greenhouse gas emissions must be drastically decreased, making this issue of animal-caused emissions highly relevant for creating a more sustainable society.

Secondly, animal agriculture is inefficient in terms of the amount of resources that are required to sustain it. In any ecosystem, the primary producers of energy are plants. Through the process of photosynthesis, plants convert sunlight and carbon dioxide into carbohydrates which in turn feeds all other organisms on Earth. However, there is a continuous loss of energy when biomass is converted from one trophic level to the next. When an animal eats a plant, only about 10% of the original biomass from the producer is retained as tissue in the body of the consumer (Pauly & Christensen, 1995). This in turn means that when that same animal gets preyed on, **only 10% of the original energy from the plant is available to the predator.** Applying this to the anthropogenic food system, eating meat and other products from animals is thus an inefficient use of resources. If humans were to stay away from animal products and instead consume the plants directly, the intermediary trophy level would be cut out of the food chain. This would result in a much more efficient use of resources and thus a more sustainable food system.

- **14% of the global GHG-emissions come from animal agriculture**
- **When humans eat animals instead of plants, 90% of the original plant energy is lost in the process of raising the animal**

To further specify how shifting towards a plant-based diet can spare the Earth's natural resources, one can take a closer look at how land use plays into animal agriculture. Currently, p**asture lands and croplands with yields intended for animal consumption are together estimated to account for 75% of all agricultural lands** (Foley et. al, 2011). If this land was instead used to grow crops directly intended for human consumption, the food produced could be enough to sustain our current population as well as an increase of another four billion people (Feeley & Machivona, 2014). Shifting towards a food system free of animals would thus contribute to solving the sustainability issues of land degradation and food insecurity. However, the present-day issue of hunger and malnourishment in poorer countries cannot solely be attributed to food scarcity; distribution of resources also plays a role (Mulligan, 2015). Reducing the amount of meat produced globally is thus not enough to solve the problem, as true sustainability with regards to food security can only be achieved once the manner in which we eat becomes more equitable on a global scale. Still, as moving towards a plant-based food system would render an overall increase in the amount of available food, it could nonetheless be a step in the right direction towards solving world hunger as well as assuring that future generations can sustain themselves.

An estimated 75% of all agricultural lands are used for animal husbandry.



In addition, **shifting towards a plant-based diet also means less water usage.** It is estimated that meat production accounts for roughly 22% of all water used by humans, and another 7% is attributed to the dairy industry (Mekonnen and Hoekstra, 2011). The reason for the vast water use is, again, attributed to the sheer amount of resources that go into producing feed for animals so that humans in turn can eat animal products. Substituting meat and dairy for plant-based alternatives means for a more effective use of resources and can thus save a significant amount of water. On average, **it takes 2350 litres of water to produce a 150 gram beef burger, whereas a soybean burger of the same size requires a mere 158 litres.** With dairy, 1050 litres of water is needed to produce 1 litre of cow's milk, and with soy milk that water footprint is only 297 litres (Ercin et. al, 2012).

Lastly, **animal agriculture increases the risk of pathogens spreading from animals to humans.** The more contact we have with animals, the higher the risk of outbreaks of zoonotic diseases. Some of these diseases can be seriously harmful or even deadly to humans (World Health Organisation, 2020). Additionally, antibiotics are frequently used to prevent animals themselves from getting sick in crowded industrial farms. This increases the risk of resistance in bacteria, seriously threatening the functionality of these drugs on humans and thus endangering lives (Ventola, 2015). Eating more plant-based would mean less animals in the industry, thus reducing the need for antibiotics as well as the risk for potential outbreaks of zoonotic diseases.

3. Why UU?

Universities play an important role in shaping society. As educators and suppliers of scientific knowledge, **universities constitute an important force for societal change and development.** Considering the ever-worsening climate crisis and our collective shortcomings of dealing with it as such, it is time universities invoke their power as key actors for creating that necessary change towards a sustainable society. The time for action is long overdue as the average temperature of the Earth is bound to transgress the 1,5 degrees limit posed by the Paris agreement if emissions continue at their current rates. It is therefore important that universities take responsibility and act now.

The power universities hold as educators should not be underestimated. Education is a powerful tool for societal change as it contributes to forming and refining the ideas of the people who, after completing their degrees, will go on to become the next leaders and actors of the world. **Having a focus on sustainability throughout all university practices is thus crucial for setting the groundworks for a sound future.** What is taught in the curriculum is therefore of great importance, but **the manner in which universities confront their own environmental footprints also matters.** It is not enough to merely teach students about sustainability; unless one also practices what one preaches, the message will fall short before it truly reaches its target.

For the same reason, it is not only as educators that universities must take responsibility for their own environmental footprint. As a community of scientists, universities constitute important bodies for supplying society with information about the world. Politicians depend on these scientific findings when it comes to developing strategies for tackling political challenges such as climate change (Böcher, 2008). When it comes to the climate crisis, however, politicians around the globe seem to disregard the scientific findings that define the situation as an emergency; in any case, their politics do not reflect it as such. This is due to the fact that sustainability issues are highly complex and require long-term solutions, causing difficulties in political processes (Klauer et. al, 2013). That an issue is difficult does not, however, mean that solving it is not of utmost importance. **Given the lack of political action, it is time scientists speak up and put pressure on politicians to take responsibility and act now** to ensure the protection of our planet. Speaking up in this case refers to using both words and action. The pressure that scientists can exert on governments in favour of climate action loses its force if universities, which are the juncture points of science, cannot take the necessary action themselves.

4. Policy recommendation

By not taking responsibility for one's own actions, the problem of the climate emergency is continuously pushed forward onto someone else. If humanity is to stand a chance at preventing the temperature rise from reaching the limit of 1,5 degrees, that pushing must end now. It is therefore the moral duty of Utrecht University to take the necessary actions to decarbonise its own institution and to favour environmental and social sustainability in its practices.

By being more selective about what food is sold on campus, Utrecht University could decrease its environmental footprint and promote a more equitous food system, thus making progress towards a sustainable future. University Rebellion Utrecht therefore urges UU to adopt a policy of plant-based catering at campus.

We know that the catering at university premises is managed by a private company. We are thus aware that the decision to transition to a plant-based menu lies with that catering company and not with the University of Utrecht itself. However, we at University Rebellion still intend to try to influence the current catering company to move towards a more plant-based menu. By spreading awareness through our actions and activism, University Rebellion aims to encourage students to choose plant-based alternatives when they eat at the cafeteria. We hope that this will show the catering company that there is a demand for more plant-based food, thus urging them to make their practices more sustainable. A more sustainable cafeteria means a more sustainable university, and University Rebellion therefore deems it wise for UU and UR to join forces in this matter.

Considering the limitations and opportunities within the prevailing catering arrangement, we at University Rebellion Utrecht have two policy recommendations.

1) We recommend Utrecht University to switch to a 100% plant-based caterer when the current catering contract has come to an end.

2) We ask Utrecht University to outspokenly support University Rebellion as we aim to put pressure on the current catering company to move towards a more plant-based menu. This support includes promoting or participating in our cause, lifting our voices through University channels as well as being open for collaboration when we reach out to you in the near future.

Response to peer review comments

One of my peers suggested I make it more clear who the policy brief is addressed to, so in my final version I added a small text box on the title page specifying that the brief is directed to the executive board of the university. It was also suggested that I add a box of key messages to go with the introduction, an idea which I liked and implemented accordingly. In response to the feedback I also made some more highlights in bold throughout the brief as well as include more concrete steps of action in my policy recommendation. Some feedback I was unable to adhere to was that the UN source was missing a publication year, but since it was a grey source (only a website), no such information was available. I also received the feedback that I sometimes repeat information and that certain statements were not adequately backed up by sources, but it was not clear which parts of the text the reviewer was referring to. Looking back, I should have asked my peer to further specify where improvements could be made, but as it was settled to focus on the other points that had been brought to my attention.

5. References and suggested further reading

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To learn more about University Rebellion's demands, please refer to the manifesto at our website:

universityrebellion.nl

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