



# Reducing the Commission's carbon and ecological footprint

## CATERING

### EXECUTIVE SUMMARY

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**Efforts to reduce the Commission's carbon and ecological footprint need to include action to reduce the footprint of catering – an area that has been mostly overlooked to date.**

Cutting catering's footprint requires action in three main areas: i) increasing the sustainability of the food offer, which would also make it healthier; ii) reducing food wastage; and iii) reducing other waste, including plastic, and other environmental impacts of catering.

The European Parliament, Council and Committee of the Regions/Economic and Social Committee are already addressing these issues in their latest catering contracts.

For its canteens, cafeterias and vending machines in Brussels, the Commission has an important opportunity to take such action in the **next Brussels catering contract**, which is **currently under preparation** by OIB and **due to run from January 2021 for at least 7 years**.

**It is critical that the Commission impose sufficiently ambitious requirements on the contractor(s) if a significant reduction in the carbon and ecological footprint of its Brussels catering operations is to be achieved during the von der Leyen Commission and beyond. The fact that the Commission does not subsidise its canteens and cafeterias, unlike the Council, Parliament and the Committees, must not be used as an excuse for inaction.**

**We propose that the Commission apply the following combination of requirements in the next contract for canteens, cafeterias and vending machines in Brussels, and at all other sites where local conditions allow.**

- i. The green public procurement (GPP) comprehensive criteria for catering services and vending machines. **NB** *The Commission committed in 2015 to leading by example by ensuring that GPP criteria are used as widely as possible in its own procurement.*
- ii. Participation in the Brussels Region's *Good Food* label scheme for canteens. All Brussels canteens should participate in the scheme and, to ensure continuous improvement, each canteen should progress to a higher level of ambition every 2 years.
- iii. A set of additional requirements designed to ensure catering's footprint is reduced substantially, in particular by:
  - increasing the proportion of plant-based foods and dishes, which have a much smaller carbon and ecological footprint than meat, dairy products, eggs and fish;
  - increasing the proportion of local, seasonal and organic produce offered; and
  - ending the offer of endangered or unsustainably managed species of fish.

To ensure early progress, without waiting for the next contract to start in 2021, the requirements under point iii. should wherever possible be implemented under the existing catering contract.

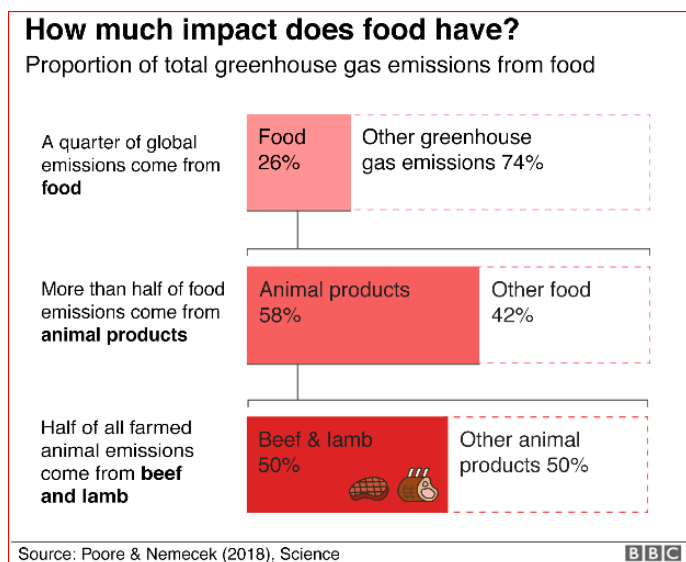


### 1. Context

The production of food is a major contributor to climate change and driver of deforestation, pollution and other forms of damage to the global environment. Food production is responsible for over a quarter of the world's annual greenhouse gas emissions, with animal products making the biggest contribution: livestock alone produces 14.5% of global emissions.

A recent report by a commission of 37 leading scientist from 16 countries warns that 'Global food production threatens climate stability and ecosystem resilience and constitutes the single largest driver of environmental degradation and transgression of planetary boundaries'<sup>1</sup>.

**Efforts to reduce the Commission's carbon and ecological footprint therefore need to include action to reduce the footprint of catering – an area the Commission has mostly overlooked to date.**



### State of play at the Commission

The Commission has taken welcome action to reduce or phase out the use of single-use plastics for certain applications in its canteens and cafeterias. We understand that under EMAS it has also recently started to measure emissions from several types of food, but that it is not yet able to measure the carbon and ecological footprint of the food served in canteens and cafeterias in a comprehensive way.

<sup>1</sup> [EAT-Lancet Commission report \*Healthy Diets from Sustainable Food Systems: Food, Planet, Health\*.  
\[https://eatforum.org/content/uploads/2019/01/EAT-Lancet Commission Summary Report.pdf\]\(https://eatforum.org/content/uploads/2019/01/EAT-Lancet\_Commission\_Summary\_Report.pdf\)](https://eatforum.org/content/uploads/2019/01/EAT-Lancet_Commission_Summary_Report.pdf)

**Moreover, the Commission does not appear to be taking any action to reduce its food footprint<sup>2</sup>.**

This contrasts with the situation at the European Parliament, Council and Committee of the Regions/Economic and Social Committee, all of which have included requirements on the sustainability of food in their most recent catering contracts.

In the technical specifications of their latest call for tender for catering, the Committee of the Regions/Economic and Social Committee underline the growing importance for its clients of a food offer that is sustainable, healthy and more plant-based:

*Tendance générale: les clients prennent de plus en plus en considération dans leur choix l'impact de l'alimentation sur la santé et l'environnement. Ils sont de plus en plus nombreux à privilégier une alimentation saine et à adopter des comportements écoresponsables, en consommant plus de produits bio et en accordant une plus grande part à l'alimentation végétarienne, flexitarienne ou végane. En outre, ils souhaitent être mieux informés sur ce qu'ils mangent et sont particulièrement attentifs à l'origine des produits et à leur composition nutritionnelle.*

Commission staff undoubtedly share these concerns. They need to be properly addressed by the Commission administration.

In its 2050 climate strategy<sup>3</sup>, the Commission recognises the need 'to foster and support consumer choices reducing climate impact'. The Communication notes that 'climate change can only be tackled if people actively engage, as consumers and as citizens.'

However, when it comes to the Commission itself the reality is that staff who are motivated to reduce the climate impact of what they eat are unable to find any 100% plant-based options<sup>4</sup> in canteens and cafeterias besides fruit, vegetables and certain snacks.

**This is despite clear demand among staff for the Commission to make more plant-based foods and dishes available:**

- In a 2017 survey of food quality at the Commission's Brussels canteens conducted by the Association of Independent Officials (TAO-AFI), 37% of the more than 3,000 respondents said

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<sup>2</sup> DG CLIMA has contracted a consultant to conduct a 'Feasibility and scoping study on a greenhouse gas-neutral Commission to be achieved as early as possible before 2050' which will cover food among other issues, but the final report is not due until autumn 2020. This is likely to be too late for it to be taken into account in the next catering contract for the Brussels canteens and cafeterias, for which we understand OIB should publish the call for tender in the next few months.

<sup>3</sup> A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy. COM/2018/773 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52018DC0773&from=EN>

<sup>4</sup> For example, the daily vegetarian dish often contains a substantial proportion of animal protein (cheese, cream or egg); soup often contains meat stock, milk or cream; all pasta is fresh and thus contains egg, and vegetarian sauces often contain cheese; salad bars typically offer little, if any, choice of plant proteins, such as beans or nuts, to compose a nutritionally complete meal; plant milk for preparing warm drinks is offered in only a few Brussels cafeterias (e.g. L-41, G-6), and only those of one caterer (Eurest).

they wanted more vegan and vegetarian products. 11% wanted lactose-free products. 57% were prepared to pay more for better-quality food.

- A petition for 'Greater choice of climate-friendly and healthy plant-based foods in Commission canteens and cafeterias', circulated for just one month earlier this year (also by TAO-AFI), was signed by around 1,750 members of staff. The petition points out that 'providing a greater choice of fully plant-based, nutritionally balanced foods and dishes that reduce our carbon and environmental 'footprints', and which can be healthier, is consistent with the objectives of EMAS and the fit@Work programme.'

**A growing number of organisations, including other EU institutions and bodies, are taking action to encourage a shift towards a more plant-based diet.** For example:

- The Brussels Region's *Good Food* label scheme encourages canteens to offer daily one or more of a range of options such as fully vegetarian dishes based on plant proteins, a 100% plant-based sandwich, and providing plant proteins at the salad bar.
- The Committee of the Regions/Economic and Social Committee is introducing a daily vegan soup, a warm vegetables bar and a *plat du jour* made with plant proteins once a week. It is requiring its chefs to undergo continuous training in vegetarian and vegan cuisine. Partly inspired by the *Good Food* label criteria, the Council is introducing daily a 100% plant-based sandwich, a warm vegetarian dish containing at least 75g of plant protein, and plant-based alternatives to dairy products.
- The University of Cambridge's catering service has reportedly cut its food-related carbon emissions by a third by replacing beef and lamb with plant-based products.
- To get its residents to eat less meat and help the city become climate-neutral by 2050, Ghent's *Donderdag Veggiedag/Jeudi Veggie/Veggie Thursday* initiative, which the Brussels *Good Food* label builds on, encourages public institutions, companies and restaurants to promote plant-based dishes on Thursdays<sup>1</sup>. All public institutions, including schools, have committed to serving vegetarian/plant-based food at lunchtime.
- The University of Helsinki reportedly plans to reduce the carbon footprint of the food it serves by 11% by taking beef off its canteen menus. It also aims to increase sales of vegetarian and vegan lunches to more than 50% of all food served.

It is noteworthy that a recent research study finds that increasing the proportion of vegetarian and vegan options available in canteens increases the sales of such dishes. The researchers conclude that this exercise in 'nudging' people's behaviour shows that simple changes to catering practices can make an important contribution to achieving more sustainable diets<sup>5</sup>.

**At the Commission, however, it is still the case that staff who wish to eat a 100% plant-based meal - for sustainability, health or other reasons - are obliged either to bring their own or to buy from one of the increasing number of shops and restaurants that offer such options.**

<sup>5</sup> Emma E. Garnett *et al*, Impact of increasing vegetarian availability on meal selection and sales in cafeterias, *PNAS Latest Articles*, <https://www.pnas.org/content/early/2019/09/24/1907207116>

This failure to promote more sustainable eating is not only a failure of leadership by the Commission administration. Against the background of declining use of canteens by staff, it also means the Commission's catering contractors (in Brussels) and the Commission itself (in Luxembourg) are losing out on the income from providing these options themselves.

## 2. Proposals for reducing the footprint of catering in Commission canteens, cafeterias and vending machines

Reducing the footprint of catering in canteens, cafeterias and vending machines requires action in three main areas:

- Increasing the sustainability of the food offer, which would also make it healthier;
- Reducing food wastage;
- Reducing other waste, including plastic, energy use and other environmental impacts such as use of water and cleaning products.

The European Parliament, Council and Committee of the Regions/Economic and Social Committee are already addressing these issues in their latest catering contracts.

For its canteens, cafeterias and vending machines in Brussels, the Commission has an important opportunity to take such action in the **next Brussels catering contract**, which is **currently under preparation** by OIB and **due to run from January 2021 for at least 7 years**.

We propose that the Commission apply the following combination of requirements in the next contract for canteens, cafeterias and vending machines in Brussels, and at all other sites where local conditions allow:

- i. Green public procurement (GPP) criteria;
- ii. Participation in the Brussels Region's *Good Food* label scheme for canteens;
- iii. A set of additional requirements designed to ensure catering's footprint is reduced substantially

**It is critical** that the Commission impose **sufficiently ambitious requirements** on the contractor(s) if a significant reduction in the carbon and ecological footprint of its catering operations is to be achieved during the von der Leyen Commission and beyond. The fact that the Commission does not subsidise its canteens and cafeterias, unlike the Council, Parliament and the Committees, must not be used as an excuse for inaction.

- i. **Green public procurement criteria**

The EU green public procurement (GPP) criteria for food, catering services and vending machines, which have been developed by the Commission itself<sup>6</sup>, to a greater or lesser degree address the three main issues mentioned above : the sustainability of the food offer, food wastage, and the other environmental impacts of catering.

The Commission has committed to leading by example by ensuring that GPP criteria are used as widely as possible in its own procurement<sup>7</sup>. **The Commission should therefore practice what it preaches by applying the GPP comprehensive criteria for catering services and vending machines in Brussels and all sites where such services are provided by contractors. It should apply the GPP comprehensive criteria for food procurement in all sites where the Commission itself prepares food for staff (e.g. in Luxembourg).**

## ii. Good Food label scheme

We understand that OIB intends to give an important role in the next Brussels catering contract to the Brussels Region's voluntary *Good Food* labelling scheme for canteens<sup>8</sup> (in which the Parliament, Council and Committee of the Regions/Economic and Social Committee already participate).

The *Good Food* scheme is a potentially useful framework for reducing the carbon and ecological footprint of catering in canteens and making the food offer healthier. However, it imposes only a very limited set of mandatory criteria, while allowing applicants considerable flexibility in choosing which optional criteria to apply and which of its three ambition levels to achieve.

**This means that the impact the scheme will have on the footprint of the Brussels canteens will depend crucially on how ambitious the Commission chooses to be in implementing it. It is also important to note that the scheme does not cover cafeterias or vending machines.**

To maximise the impact of the *Good Food* scheme, the Commission should observe the following principles regarding the Brussels canteens:

- All Brussels canteens should participate. The approach apparently favoured by OIB of obtaining the label only for the Berlaymont and at least two of the 12 other canteens is not sufficient to reduce the footprint of the Brussels canteens. It would also treat the users of non-participating canteens as second-class citizens.
- Where lack of essential equipment genuinely prevents a given canteen from qualifying for the label, the Commission could postpone applying for the label for that canteen for a maximum of one year while the canteen is brought up to the required standard.
- To ensure continuous improvement, as in EMAS, each canteen should move to a higher level of ambition every 2 years by obtaining an additional 'fourchette' on its label. Every canteen should reach the maximum level of three 'fourchettes' by the end of the contract. (The

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<sup>6</sup> SWD(2019) 366 final

<sup>7</sup> Closing the loop — An EU action plan for the Circular Economy. COM(2015) 614 final. See pp. 7-8.

<sup>8</sup> <https://www.goodfood.brussels/nl/contributions/het-good-food-kantine-label>

Committee of the Regions/Economic and Social Committee intends to achieve three fourchettes already in 2020).

- Certain key criteria which are optional under the scheme should be made mandatory for the catering contractor(s) by the Commission (see *Additional requirements* below).

### iii. **Additional requirements**

**Given the flexibility inherent in the GPP criteria and the Good Food scheme, in order to ensure the footprint of the catering in canteens, cafeterias and vending machines is reduced substantially the Commission should impose a set of additional requirements on the contractor(s).**

As shown in footnotes below, some of the requirements we propose are criteria which are optional under the *Good Food* label scheme but which we consider the Commission should mandate the contractor(s) to apply. Other proposed requirements reflect sustainability- and/or health-motivated requirements or preferences contained in the latest calls for tender for catering published by the Council and/or the Committee of the Regions/Economic and Social Committee. We see no reason why the Commission should not follow their lead.

In addition, footnotes indicate mandatory requirements proposed by the Directors of EASME and REA and the Acting Director of ERCEA in the *REA-EASME-ERCEA Joint contribution note on the future contract of EC canteens* sent to the Acting Director of OIB<sup>9</sup>. We endorse the REA-EASME-ERCEA proposals.

#### In canteens, cafeterias and (where relevant) vending machines:

- To limit the risk of it contributing to deforestation, and to limit transport emissions, all meat served is produced in the European Union. It also respects all EU animal welfare standards<sup>10</sup>.
- To reduce meat content, meat-based dishes and products can contain a proportion of plant proteins.
- No fish on the IUCN (International Union for Conservation of Nature) red or orange lists is served unless it is labelled as organic, ASC (Aquaculture Stewardship Council) or MSC (Marine Stewardship Council)<sup>11</sup>. More than 50% (by value) of the fish served carries one or more of these labels<sup>12</sup>. To limit transport, North Sea fish is preferred<sup>13</sup>.
- All eggs (fresh and powdered) and all milk (dairy and plant-based) are organic<sup>14</sup>.
- All bananas are organic and Fairtrade; all apples are organic and locally produced<sup>15</sup>.
- At least 30% of bread is organic<sup>16</sup>.

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<sup>9</sup> Ares(2019)6199020 – 07/10/2019

<sup>10</sup> REA-EASME-ERCEA request.

<sup>11</sup> Council requirement; *Good Food* label optional criterion A.14.

<sup>12</sup> Council requirement; REA-EASME-ERCEA request; *Good Food* label optional criterion A.13.

<sup>13</sup> Committee of the Regions/Economic and Social Committee preference.

<sup>14</sup> Committee of the Regions/Economic and Social Committee requirement; organic eggs are *Good Food* label optional criterion A.12.

<sup>15</sup> Both are Committee of the Regions/Economic and Social Committee requirements.



- No palm oil is used<sup>17</sup>; this includes palm oil that is certified as 'sustainable', due to doubts over the credibility of palm oil sustainability certification schemes.
- No processed food of the 5th category ('cinquième gamme') is used<sup>18</sup>.
- All dishes and products, except individual pieces of raw fruit, carry a complete list of ingredients in which potential allergens are clearly highlighted.
- No drinks are sold in plastic bottles<sup>19</sup>.
- Refillable glass bottles are used for dressing oils and vinegar, and reusable glass pots for sugar, salt and pepper<sup>20</sup>.
- Sandwiches, prepared salads and other foods that remain unsold at closing time on their date of expiry are donated to food banks for use the same day.

### In canteens

- A nutritionally balanced warm vegetarian dish, containing at least 75g of plant proteins per portion, is served daily<sup>21</sup>.
- A nutritionally balanced, 100% plant-based warm dish is served daily<sup>22</sup> (this could be the vegetarian dish or additional to it); each portion contains at least 75g of plant proteins.
- The price of vegetarian/100% plant-based warm dishes is the same as, or lower than, that of the meat/fish *plat du jour*.
- Every Thursday is *Jeudi Veggie*, where the main dish is vegan and 100% organic at a price equal to or below that of the other prepared warm dishes<sup>23</sup>.
- The salad bar contains at least 30% plant proteins<sup>24</sup>, which are not mixed with animal proteins. All the plant proteins offered have a protein content of more than 10%<sup>25</sup>.
- Vegetable soups contain no animal products (e.g. cream or beef stock).
- Meat/fish dishes contain the following cooked weights (+/-10%) : 120g meat or poultry (uncoated, without bones or sauce) or 100-150g fish (without sauce) + minimum 250g vegetables<sup>26</sup>.
- The grill is discontinued as it promotes overconsumption of meat and in view of the evidence that high-temperature cooking is unhealthy.

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<sup>16</sup> Council requirement.

<sup>17</sup> REA-EASME-ERCEA request.

<sup>18</sup> REA-EASME-ERCEA request.

<sup>19</sup> Committee of the Regions/Economic and Social Committee requirement.

<sup>20</sup> REA-EASME-ERCEA request.

<sup>21</sup> Council requirement; Good Food label optional criterion A.1 and mandatory criterion Y.3 .

<sup>22</sup> REA-EASME-ERCEA request.

<sup>23</sup> REA-EASME-ERCEA request.

<sup>24</sup> Council requirement.

<sup>25</sup> Good Food label optional criterion C.3.

<sup>26</sup> Council recommendation. This is in line with the REA-EASME-ERCEA request 'Reduce the weight of meat portions and increase the portion of vegetables in a nutritionally balanced way' and with the philosophy of Good Food label optional criteria C.1 and C.2.

- Half-portions of all warm dishes are offered at a reduced price<sup>27</sup>.
- At least 20 organic products are used, each of which is included in menus at least once per month<sup>28</sup>.
- The percentage of seasonal vegetables offered exceeds the mandatory minimum required by the *Good Food* label; the minimum percentages per month for obtaining at least 2 points under the scheme are applied, including for the salad bar<sup>29</sup>.
- Leftover vegetables that have been prepared but not served to customers can be used for making soup the next day, provided all hygiene and food safety rules are followed<sup>30</sup>. Alternatively, they can be sold at half-price at the end of the canteen service for clients to take away in their own containers.
- At least two 100% plant-based desserts are offered daily, including at least one plant-based alternative to dairy products<sup>31</sup>.
- The environmental footprint of every dish is communicated to clients, for example using colour codes<sup>32</sup>. The footprint information for all dishes is displayed clearly side by side at the entrance to canteens as well as in the menus published on MyIntracomm. The presentation of the footprints is based on a scientifically credible footprint analysis tool (e.g. Youmeal), the choice of which is reviewed periodically as such tools evolve.
- The contractor runs several information campaigns per year in each canteen on different aspects of sustainable food<sup>33</sup>.
- The head chefs of each canteen and the person responsible for environment attend at least three training sessions per year on sustainable food.<sup>34</sup> Head chefs and/or sous-chefs undergo continuous training in vegetarian and vegan cuisine<sup>35</sup>. All kitchen personnel attend training on environmental issues once a year<sup>36</sup>. The training is given by a recognised professional body in the field of sustainable food, such as Bruxelles Environnement/Leefmilieu Brussel<sup>37</sup>.

#### In cafeterias and (where relevant) vending machines)

- One type of 100% plant-based sandwich with a nutritionally balanced filling is offered daily<sup>38</sup>.
- One type of prepared salad containing a nutritionally balanced mix of fresh and/or grilled vegetables and plant proteins is offered daily. The plant proteins have a protein content of more than 10%<sup>39</sup>.

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<sup>27</sup> Council requirement. REA-EASME-ERCEA request.

<sup>28</sup> Council requirement.

<sup>29</sup> Council requirement. For 2 points, the monthly minima for seasonal vegetables range from 25% in April and May to 90% in August and September.

<sup>30</sup> Council requirement; *Good Food* label optional criterion B.8.

<sup>31</sup> Council requirement.

<sup>32</sup> REA-EASME-ERCEA request.

<sup>33</sup> *Good Food* label optional criterion E.2.

<sup>34</sup> Council requirement.

<sup>35</sup> Committee of the Regions/Economic and Social Committee requirement.

<sup>36</sup> Council requirement.

<sup>37</sup> Committee of the Regions/Economic and Social Committee requirement.

<sup>38</sup> Council requirement; REA-EASME-ERCEA request; *Good Food* label optional criterion A.2.

- The daily offer of one type of plant milk for preparing warm drinks, currently available only in a limited number of Eurest cafeterias, is extended to all cafeterias<sup>40</sup>. Plant milk is also available for cooling warm drinks<sup>41</sup>.
- All coffee, tea and cane sugar are organic<sup>42</sup>.
- At least 40% of packaged sweet snacks are Fairtrade and/or organic<sup>43</sup>.

#### In vending machines

- Plant milk is sold in individual cartons and is available as an option for making or adding to warm drinks.
- A selection of 100% plant-based products is offered, including chocolate and biscuits.

### **3. Proposals for reducing the footprint of catering at Commission events**

The EMAS *Guidelines on organising sustainable events at the European Commission*, published in July 2018, set minimum requirements for greening all aspects of a conference, seminar or meeting, including catering.

'Minimum requirements' include choosing seasonal food, offering a wide choice of plant-based options, preventing food waste and avoiding single-use items. 'Advanced options' recommend a full vegetarian or plant-based menu. Especially when the advanced options are chosen, the guidelines set out concrete steps for organising sustainable events and provide concrete tools for that purpose, including best practice examples and a checklist.

However, there is a general lack of awareness of the guidelines across the Commission, which means event organisers seldom apply them. To remedy this, **the guidelines and their future revisions should be systematically included as an annex to all Commission framework contracts dealing with events organisation and catering.**

In addition, the guidelines could be annexed to other types of contracts involving conferences or meetings. This could be done via respective DGs' online applications for managing contracts, such as OPSYS.

### **4. Increasing the proportion of plant-based foods and proteins: sustainability and health benefits**

The foods with the highest greenhouse gas emissions are animal products: meat, dairy products and fish. Livestock alone produces 14.5% of global greenhouse gas emissions<sup>44</sup>. Meat, dairy, eggs and fish

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<sup>39</sup> *Good Food* label optional criterion C.3.

<sup>40</sup> This is also a Council requirement.

<sup>41</sup> REA-EASME-ERCEA request.

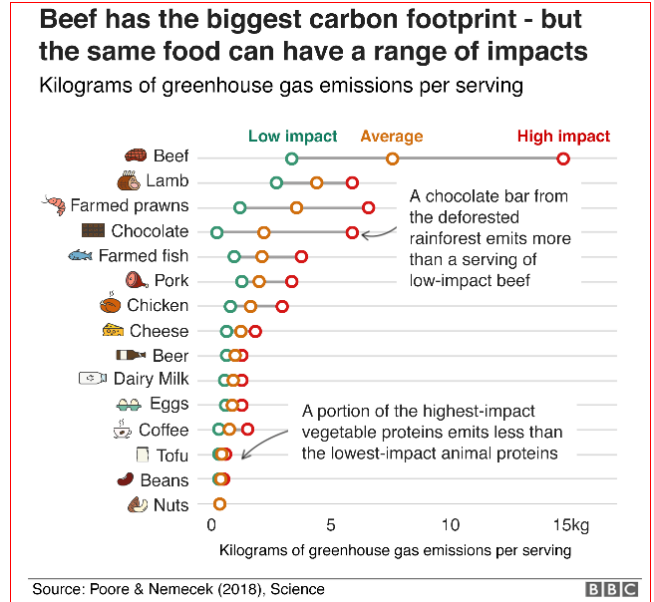
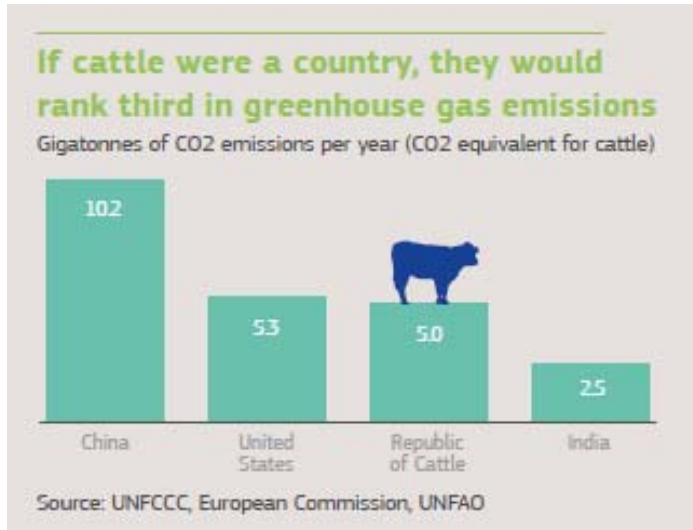
<sup>42</sup> Committee of the Regions/Economic and Social Committee requirement.

<sup>43</sup> Council requirement.

<sup>44</sup> UN Food and Agriculture Organization (FAO) <http://www.fao.org/news/story/en/item/197623/icode/>

from aquaculture are responsible for 56-58% of the total greenhouse gas emissions from the global food system and use 83% of farmland<sup>45</sup>.

Vegetable proteins such as beans, nuts and wholegrains generally have the lowest greenhouse gas emissions of all proteins.



Unsustainable systems of food production also have a range of other impacts that can damage the environment, food security and human health.

These include:

- Deforestation: around 80% of Amazon rainforest deforestation is caused by cattle ranching or growing soy for animal feed<sup>46</sup>. It is important to note that this meat and animal feed may end up being sold and consumed in the EU, thereby making the EU an indirect contributor to this deforestation. Production of palm oil is another major driver of deforestation.
- Food insecurity: over 40% of crops produced worldwide, including 90% of all soy grown<sup>47</sup>, is fed to farm animals, not humans.
- Overuse of water: for example, 15,500 litres are needed to produce 1kg of beef.
- Destruction of biodiversity: 30% of biodiversity loss is caused by the livestock sector<sup>48</sup>.
- Poisonous chemicals: use of pesticides and herbicides in land-based agriculture and aquaculture affects both humans and wildlife.
- Pollution of air and water: for example, ammonia from livestock farming contributes to the creation of fine particles in the air which can cause breathing difficulties, while nitrates in the

<sup>45</sup> J. Poore, T. Nemecek, Reducing food's environmental impacts through producers and consumers. *Science*, 1 June 2018. <https://science.sciencemag.org/content/360/6392/987>

<sup>46</sup> WWF figure.

<sup>47</sup> Earth Policy Institute figures.

<sup>48</sup> WWF figure.

effluent from livestock factory farms contribute to the proliferation of toxic seaweed along coastlines in the EU and elsewhere.

- Soil erosion or exhaustion through overgrazing by cattle or crop monocultures.
- The spread of antibiotic resistance in animals and humans alike, through overuse of antibiotics in livestock farming.

**Numerous scientific studies point to the need, for both environmental and public health reasons, to rebalance the typically meat-heavy 'Western' diet by reducing consumption of animal proteins and replacing them with plant proteins.**

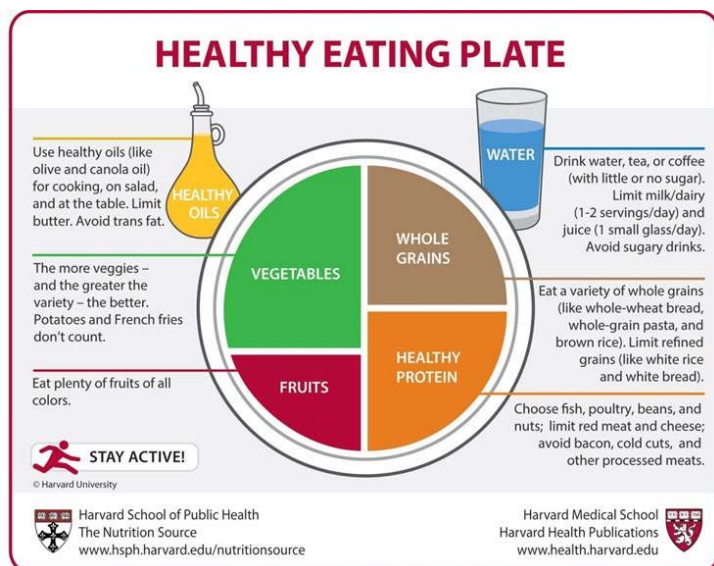
Specifically regarding health, there is a considerable and growing body of evidence indicating that reducing meat and dairy consumption and increasing consumption of plant foods like beans, nuts, wholegrains, vegetables and fruits can have a range of benefits. Certain studies, especially those produced by the European Prospective Investigation into Cancer and Nutrition (EPIC)<sup>49</sup>, show a direct correlation between regular consumption of meat and dairy products and several types of cancer, type-II diabetes, obesity and cardiovascular diseases. Another study estimates that changing from current diets to healthy diets is likely to prevent around 11 million premature deaths per year worldwide — a reduction of about 20%<sup>50</sup>.

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<sup>49</sup> EPIC studies:

- European Prospective Investigation into Cancer and Nutrition (nutritional studies): <http://epic.iarc.fr/research/activitiesbyresearchfields/nutritionalepidemiology.php> ;
- 'Meat, fish, and colorectal cancer risk: the European Prospective Investigation into cancer and nutrition', Norat T. et al, J Natl Cancer Inst., 2005;
- 'Meat intake and risk of stomach and esophageal adenocarcinoma within the European Prospective Investigation Into Cancer and Nutrition (EPIC)', González et al, J Natl Cancer Inst, 2006;
- 'Animal foods, protein, calcium and prostate cancer risk: the European Prospective Investigation into Cancer and Nutrition', Allen et al, Br J Cancer, 2008.

<sup>50</sup> [EAT-Lancet Commission report \*Healthy Diets from Sustainable Food Systems: Food, Planet, Health\*.  
\[https://eatforum.org/content/uploads/2019/01/EAT-Lancet\\\_Commission\\\_Summary\\\_Report.pdf\]\(https://eatforum.org/content/uploads/2019/01/EAT-Lancet\_Commission\_Summary\_Report.pdf\)](https://eatforum.org/content/uploads/2019/01/EAT-Lancet_Commission_Summary_Report.pdf)



at least  
75% plant-based

On the climate impact of food, the report that is perhaps most representative of the international scientific consensus is the Intergovernmental Panel on Climate Change’s August 2019 special report *Climate Change and Land*.

In the section on greenhouse gas emissions associated with different diets, the report notes:

‘Recent FAO [UN Food and Agriculture Organization] projections of food and agriculture to 2050 under alternative scenarios characterised by different degrees of sustainability provide global-scale evidence that rebalancing diets is key to increasing the overall sustainability of food and agricultural systems world-wide. A 15% reduction of animal products in the diets of high-income countries by 2050 would contribute to containing the need to expand agricultural output due to upward global demographic trends....GHG [greenhouse gas] emissions and the pressure on land and water [would] be significantly reduced...’<sup>51</sup>.

**The IPCC report and other studies<sup>52</sup> show that shifting towards a more plant-based diet is one of the most effective ways to reduce the carbon and ecological footprint of food as well as to improve public health.**

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<sup>51</sup> Quote taken from Section 5.4.6, *Greenhouse gas emissions associated with different diets*.

The same section also notes : ‘In their systematic review, Nelson et al. (2016) conclude that, in general, a dietary pattern that is higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in animal-based foods is more health-promoting and is associated with lesser environmental impact (GHG emissions and energy, land, and water use) than is the current average “meat-based” diet.’

<sup>52</sup> For example, J. Poore, T. Nemecek, Reducing food’s environmental impacts through producers and consumers. *Science*, 1 June 2018. <https://science.sciencemag.org/content/360/6392/987>; M. Springmann et al. Mitigation potential and health impacts from emissions pricing of food commodities, *Nature Climate Change*, 2017. <https://www.nature.com/articles/nclimate3155>; EAT-Lancet Commission report *Healthy Diets from Sustainable Food Systems: Food, Planet, Health*. [https://eatforum.org/content/uploads/2019/01/EAT-Lancet Commission Summary Report.pdf](https://eatforum.org/content/uploads/2019/01/EAT-Lancet_Commission_Summary_Report.pdf)