

18 December 2017

Rt Hon Theresa May MP
Prime Minister
10 Downing Street
London SW1A 2AA

Dear Prime Minister

Your initiative on climate change announced at the One Planet Summit

Compassion in World Farming welcomes the high priority you gave to tackling climate change at the One Planet Summit in Paris on 12 December.

One crucial area is often neglected in the fight against climate change; this is the contribution of our diets to greenhouse gas (GHG) emissions.

To meet the Paris Agreement's targets, all sectors need to reduce their emissions. Wollenberg *et al* (2016) estimate that agriculture must reduce its annual emissions by 1 Gt CO₂e by 2030 if the world is to remain within the 2 °C target.¹ However, research shows that on a business-as-usual basis emissions from food and agriculture will increase substantially and could make it very difficult to reach the Paris targets.^{2 3}

UK GHG emissions from agriculture have decreased from 60.5 MtCO₂e in 1990 to 49.5 MtCO₂e in 2013, a welcome fall of 18%.⁴ However, this fall has at present come to an end. The Committee on Climate Change's 2017 report to Parliament states that since 2009, emissions from agriculture "across all main gases and sources have increased, and overall GHG emissions have risen by an annual average of 0.3%".⁵ The report states: "The UK agriculture sector is not on track to deliver the agreed level of ambition for a reduction of 3 MtCO₂e in England (4.5 MtCO₂e in the UK) by 2022".

Mitigation techniques can reduce agricultural emissions though care must be taken to ensure that any technique used does not harm animal welfare. However, such supply side measures will not on their own be able to achieve a sufficient reduction in farming's GHG emissions; indeed they may not be able to prevent an increase.^{6 7}

Need for dietary change

A Chatham House study entitled *Livestock: Climate Change's Forgotten Sector* stresses that it is unlikely that global temperature rises can be kept below 2°C without a reduction in meat and dairy consumption.⁸ Indeed a number of studies show that a significant reduction in meat consumption is essential if food-related emissions are to decrease.^{9 10 11}

Hilal Elver, the UN Special Rapporteur on the right to food, stresses: "The world's current consumption pattern of meat and dairy products is a major driver of climate change and climate change can only be effectively addressed if demand for these products is reduced."¹²

A considerable body of peer-reviewed scientific literature shows that animal products generally generate substantially higher GHG emissions per unit of nutrition produced than non-animal foods.^{13 14} Springmann *et al* (2016) report that pork, poultry and beef all have much higher GHG emissions (measured both per calorie and per serving) than fruit, vegetables, cereals or pulses.¹⁵

Springmann *et al* (2016) compared the GHG emissions in 2050 of a reference diet based on UN Food and Agriculture Organisation (FAO) projections with a healthy global diet based on WHO/FAO Expert Consultations and recommendations by the World Cancer Research Fund. The healthy global diet contains fewer animal products than the reference diet. The researchers report that the healthy global diet would produce 29% less GHG emissions in 2050 than the reference diet. They point out that the reduced emissions in the healthy global diet are “largely attributable to reduced red meat consumption”.

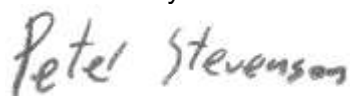
A study by Westhoek *et al* (2015) concludes that halving the consumption of meat, dairy products and eggs in the EU would achieve a 19–42% reduction in GHG emissions from agriculture.¹⁶ Scarborough *et al* (2015) studied UK diets and report that someone eating over 100g of meat per day emits 53% more GHG emissions from their meat consumption than a person who eats less than 50g of meat per day.¹⁷

One of the leading researchers in this area, Dr Bojana Bajželj, has written that “our demand for food alone could virtually guarantee that the Paris aspirations are unachievable”. She stresses the need for “cutting down on consumption of intensively-produced meat and dairy. Raising livestock is a much less efficient way of producing food than growing crops. Currently, a third of the crops we grow is fed to livestock to produce meat. If we used the land growing feed to grow food, and ate only meat from pasture-fed animals, there is scope for very significant reductions in emissions.”¹⁸

In conclusion, I urge the Government to do much more to inform the public that our current diets make a substantial contribution to climate change and that without a reduction in meat and dairy consumption it will be very difficult to meet the Paris targets.

I am copying this letter to the Minister of State for Climate Change.

Yours sincerely



Peter Stevenson
Chief Policy Advisor

¹ Wollenberg *et al*, 2016. Reducing emissions from agriculture to meet the 2 °C target. *Global Change Biology* 22(12):3859-3864. <http://dx.doi.org/10.1111/gcb.13340>

² Bajželj *et al*, 2014, *Importance of food-demand management for climate mitigation*. Nature Climate Change, Vol 4, October 2014

³ Springmann M *et al*, 2016a. Analysis and valuation of the health and climate change cobenefits of dietary change. | PNAS vol. 113 no. 15: 4146–4151

⁴ The UK's Second Biennial Report under the United Nations Framework Convention on Climate Change, 2015

⁵ Committee on Climate Change, 2007. Report to Parliament. Meeting carbon budgets: closing the policy gap

⁶ Wollenberg *et al*, 2016. Reducing emissions from agriculture to meet the 2 °C target. *Global Change Biology* 22(12):3859-3864. <http://dx.doi.org/10.1111/gcb.13340>

⁷ Bailey *et al*, 2014. *Livestock – Climate Change's Forgotten Sector*. Chatham House, London
<https://www.chathamhouse.org/sites/files/chathamhouse/field/document/20141203LivestockClimateChangeBaileyFroggattWellesley.pdf>

⁸ *Ibid*

⁹ *Ibid*

¹⁰ Springmann M *et al*, 2016a. Analysis and valuation of the health and climate change cobenefits of dietary change. | PNAS vol. 113 no. 15: 4146–4151

¹¹ Hedenus F *et al*, 2014. The importance of reduced meat and dairy consumption for meeting stringent climate change targets. *Clim Change* 124(1-2):79–91.

¹² Elver, H., 2015. Interim Report, 5 August 2015. A/70/287. www.refworld.org/docid/55f291324.html

¹³ Garnett T. (2011). *Where are the best opportunities for reducing greenhouse gas emissions in the food system (including the food chain)?* Food Policy 36, S23-S32

¹⁴ Tilman D, Clark M (2014) Global diets link environmental sustainability and human health. *Nature* 515(7528):518–522.

¹⁵ Springmann M *et al*, 2016a. Analysis and valuation of the health and climate change cobenefits of dietary change. | PNAS vol. 113 no. 15: 4146–4151

¹⁶ Westhoek *et al*, 2015. *Nitrogen on the Table: influence of food choices on nitrogen emissions and the European environment*. European Nitrogen Assessment Special Report on Nitrogen and Food. Centre for Ecology & Hydrology, Edinburgh

¹⁷ Scarborough P. *et al*, 2014. Dietary greenhouse gas emissions of meat-eaters, fish-eaters, vegetarians and vegans in the UK. *Climatic Change* (2014) 125:179–192 DOI 10.1007/s10584-014-1169-1

<http://link.springer.com/article/10.1007%2Fs10584-014-1169-1#page-1>

¹⁸ <http://www.carbonbrief.org/guest-post-failure-to-tackle-food-demand-could-make-1-point-5-c-limit-unachievable>