

# PARIS CLIMATE TARGETS BEYOND OUR REACH WITHOUT DIETARY CHANGE

P Stevenson, Compassion in World Farming, Godalming, UK  
Peter.Stevenson@ciwf.org

## We can't hit the Paris targets without a reduction in meat and dairy consumption

To make up the shortfall between reductions pledged and those needed to meet the 2°C target, all sectors need to reduce their emissions. However agriculture's emissions are set to rise – on a business-as-usual (BAU) basis globally agriculture's GHG emissions will increase by 77% by 2050. Even if yield gaps are closed, its emissions will rise by 42%.<sup>3</sup> BAU will lead to agriculture's emissions being so high by 2050 that they alone will push global temperatures to increase by almost 2°C.<sup>4</sup>

Livestock generally produce more emissions per unit of nutrition produced than plant-based foods.<sup>5</sup> Supply-side measures – such as mitigation techniques and productivity increases – will be insufficient on their own to prevent a rise in livestock's emissions.<sup>6</sup> Demand-side measures are crucial if agriculture's emissions are to be reduced. Transitioning toward more plant-based diets that are in line with standard dietary guidelines could reduce global food-related emissions by 29–70%.<sup>7</sup>

Bajželj *et al* (2014) conclude that emissions from agriculture can only be reduced by a 50% decrease in food waste and a move to healthy diets which in many (but not all) parts of the world involves substantial reductions in meat and dairy consumption. The proposed healthy diets in this study vary between regions. They involve a 60% and 23% decrease in meat and dairy consumption respectively in West Europe. The decrease in East Europe would be lower: a 45% and 4% reduction in meat and dairy consumption respectively. The study allows for a 268% and 47% increase in meat and dairy consumption respectively in South Asia.<sup>8</sup>

Decreases of meat and dairy consumption of this order would reduce emissions by around 6 GtCO<sub>2</sub>e/yr. This would bridge around one quarter of the gap between emission reductions that have been pledged and those needed to meet the below 2°C target.<sup>9</sup>



**Likely emissions in 2050  
under emission reductions  
pledged to date:**

**45 GtCO<sub>2</sub>e per year<sup>1</sup>**

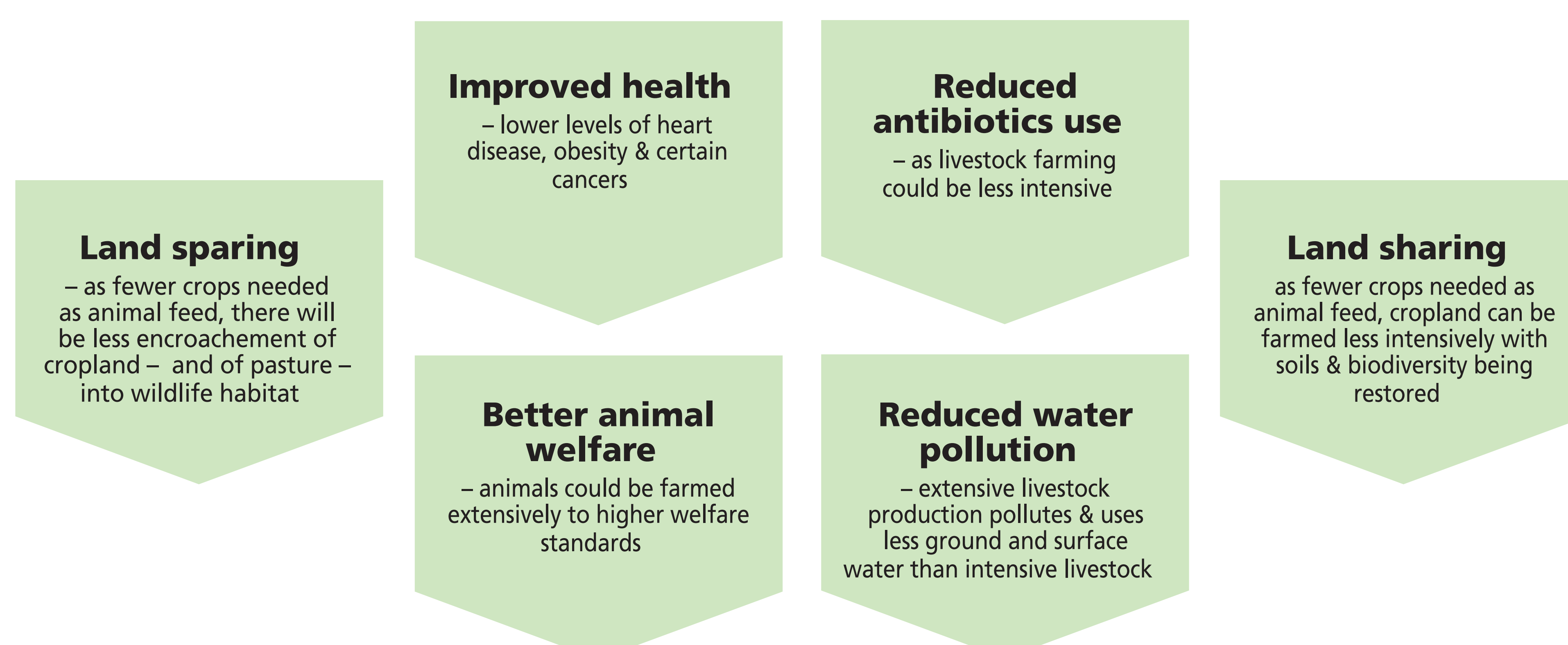
**Emissions compatible with  
2°C target:**

**23 GtCO<sub>2</sub>e per year by 2050<sup>2</sup>**

**Shortfall between reductions  
pledged and those needed to  
meet 2°C target:**

**22 GtCO<sub>2</sub>e per year by 2050**

**The Paris targets cannot be met without a substantial reduction  
in meat and dairy consumption. Such a reduction would deliver  
important co-benefits**



“ 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... Nations with emergency economies must increase awareness of the implications of meat consumption, while developed countries should demonstrate a willingness to modify consumption behaviour and avoid food waste. ”

Hilal Elver, UN Special Rapporteur on the right to food: 2015<sup>10</sup>

### EU position

The European Commission states that the EU is not on track to meet its target for 2030 of a 40% reduction in emissions compared with 1990.<sup>11</sup> Dietary change could help. Research shows that halving the consumption of meat, dairy products and eggs in the EU would achieve a 19–42% reduction in GHG emissions from agriculture.<sup>12</sup>

### References

- <sup>1</sup>Wellesley, L., Happer, C. and Froggatt, A., 2015. Changing climate, changing diets: pathways to lower meat consumption. Royal Institute of International Affairs. <https://www.chathamhouse.org/publication/changing-climate-changing-diets>
- <sup>2</sup>Ibid
- <sup>3</sup>Bajželj B. *et al*, 2014. Importance of food-demand management for climate mitigation. Nature Climate Change <http://www.nature.com/doi/10.1038/nclimate2353>
- <sup>4</sup>Ibid
- <sup>5</sup>Garnett, T., 2011. Where are the best opportunities for reducing greenhouse gas emissions in the food system (including the food chain)? Food Policy 36, 523–532
- <sup>6</sup>Bailey R, Froggatt A. and Wellesley L. 2014. Livestock – Climate Change's Forgotten Sector: Global Public Opinion on Meat and Dairy Consumption. Chatham House
- <sup>7</sup>Springmann M., *et al.*, 2016. Analysis and valuation of the health and climate change cobenefits of dietary change. PNAS vol. 113 no. 15 > Marco Springmann, 4146–4151, doi: 10.1073/pnas.1523119113 <http://www.pnas.org/content/113/15/4146.abstract>
- <sup>8</sup>As 3
- <sup>9</sup>Wellesley L, Happer C and Froggatt A, 2015. Changing climate, changing diets: pathways to lower meat consumption. Chatham House
- <sup>10</sup>Elver, H., 2015. Interim Report, 5 August 2015. A/70/287. [www.refworld.org/docid/55f291324.html](http://www.refworld.org/docid/55f291324.html)
- <sup>11</sup>European Commission, 2016. Proposal for a Regulation on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 for a resilient Energy Union and to meet commitments under the Paris Agreement. COM(2016) 482 final
- <sup>12</sup>Westhoek, H. *et al.*, 2015. Nitrogen on the Table: Special report of European Nitrogen Assessment