WRITTEN SUBMISSION TO THE EFRA COMMITTEE INQUIRY INTO THE ECONOMIC, SOCIAL & ENVIRONMENTAL IMPACT OF FOOD WASTE IN ENGLAND.

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1. Feedback is an environmental organisation that aims to prevent food waste across the supply chain. We specialise in exposing the hidden causes of food waste at all levels of the supply chain through investigative research and high profile public campaigns.

2. Current estimates of food wasted in the UK[1] are staggering, yet underestimate the true extent by focusing on waste that arises in the final stages of the supply chain - households, hospitality and food service, manufacturing, retail and wholesale. This is due to a lack of data on waste arising in the early stages of the supply chain both domestically and overseas[2]. Feedback's research has found significant waste generated in the supply chains of the UK's major retailers and wholesale markets which deserves further attention.

3. While it has been stated that manufacturing and agricultural waste are outside the scope of this inquiry, we feel very strongly that these sectors must not escape scrutiny of their contribution to the food waste scandal. The UK has good data on manufacturing level food waste[3], of which 0.9 million tonnes is avoidable – far more than the 0.2 million tonnes of avoidable food waste at retail level. Further data on agricultural food waste will become available by 2018 through Courtauld 2025[4], and we already have good data for some key agricultural products[5]. For instance, WRAP estimates that 0.5-5% of potatoes are lost in the field (30,000 to 297,000 tonnes annually).

4. The FAO's report *Food Losses and Food Waste* suggested that approximately 59% of food lost and wasted per capita in Europe occurs between production and processing stages[6]. The EU FUSIONS' report *Estimates of European food waste levels*, proposes that 30% of European food waste arises at this stage[7]. These estimates are based on inadequate data but demonstrate that the scale of food waste in the supply chain is substantial and should not be ignored. Furthermore, food waste at this stage is often more concentrated in a few businesses rather than diffused across millions of consumers, so potentially easier to reduce.

Environmental impact

5. Food production is the single biggest impact humans have had on the planet's ecosystems. The growing demand for food is responsible for more than 80% of deforestation, 70% of fresh water consumption, is the largest single cause of biodiversity loss and produces more than 30% of global greenhouse gas emissions. If food waste were a country, it would be the third largest global emitter of greenhouse gases after the USA and China[8]. WRAP have also published UK product-specific statistics for GHG emissions from waste potatoes of 2664 kt CO2e and brassicas 77 kt CO2e.[9]

6. Feeding grain to livestock has a hugely destructive impact: Over 80% of global soy goes to animal feed, and 88% of our imported soy comes from Brazil, contributing to deforestation, biodiversity loss and GHG emissions. Global agricultural emissions will increase if we increase food production without reducing food waste and addressing meat production and consumption.[10].

Economic impact

7. The estimated cost to the UK of £17 billion per annum[11] does not include domestic farm-level and supply chain waste or waste from overseas supply chains. Rabobank argue that wastage occurring during agricultural production, post-harvest handling and storage, processing and distribution, costs businesses across Europe €60 billion. This figure is double the cost of food waste to European consumers and contributes to reductions in innovation and development of businesses[12].

8. Food waste has a significant economic impact on farmers and rural communities in the UK and overseas. Unfair trading practices in Kenya can cause farmers to waste entire crops forcing them to seek financial loans in order to pay their work force[13]. Cosmetic specifications cause farmers across the world to overproduce in order to meet the strict product criteria required by UK retailers. Any product that doesn't meet necessary requirements and can't be sold to secondary market is wasted without compensation – the cost of production remains firmly with the producer.

9. The average household loses £470 a year because of avoidable food waste, whilst those with children incur a loss of £700, equating to £12.5 billion across the nation[14]. Food waste costs the hospitality and food service sector £3 billion per year[15].

10. Currently feed costs make up between54 and 69% of total production costs in pig farming across the EU[16] taking a heavy toll on farmers many of whom have gone out of business. Farmers compete on the global market for pig feed ingredients such as barley, wheat, and soy. In contrast, the Japanese government support pig farmers who want to use food waste as feed and the resulting pork is sold at a premium as eco-pork on the same supermarket shelves from which the waste originated. The Japan Feed Ecology Centre produces feed at 40-60% of the cost of conventional feed without government subsidies[17].

Social impact

11. In the UK 8.4 million people are struggling to afford to eat[18] and the UN estimates that over one billion people do not have access to enough food. Food waste exacerbates hunger putting edible food out of reach and there is enough wasted food to feed three billion people.

12. Reducing food waste will alleviate pressures on global resources and therefore indirectly help bring food prices down, and reduce food poverty.

13. The UN estimates that if farmers all around the world fed their livestock on agricultural by-products and food waste, enough grain would be liberated to feed an extra three billion people – more than the additional number expected to be sharing our planet by 2050[19].

Devolved nations and Europe

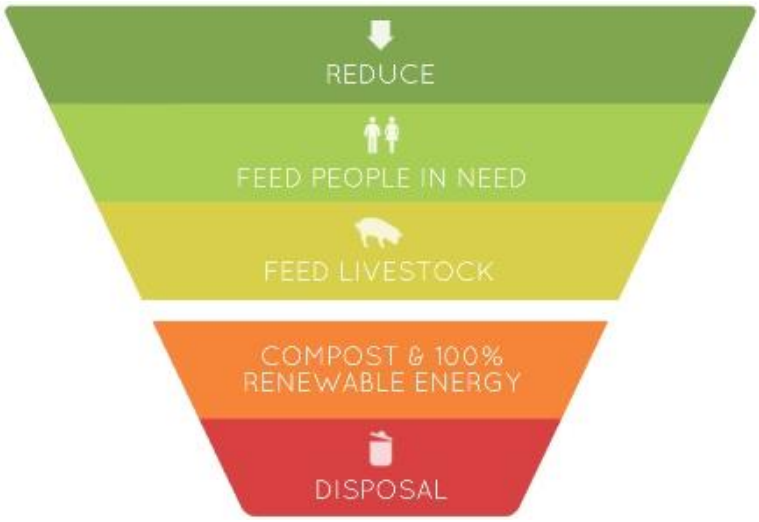
21. We commend **Scotland** as the first country in Europe to have a national food waste reduction target of by 33% by 2025. Food businesses in non-rural areas who produce over 5kg of food waste per week must, by law, present food waste for separated collection.[20] There is also a ban on sending separated food waste to landfill that has been effective since 2014[21].

22. **French** retailers and markets over 400m^2 are required by law to *strive* to eliminate back of store waste by donating surplus food, sending it to animal feed processors, or using it for composting and anaerobic digestion. However the law does not "ban" supermarket food waste or address the role supermarkets play in driving waste throughout the supply chain, and has had a limited impact in reducing food waste. **Italy** passed a similar

law to France, with an emphasis on alleviating retailers of certain taxes that previously made it difficult to donate surplus food (including food that is past its sell-by date).

Measures to reduce food waste and voluntary initiatives versus legislation

14. Any measure taken to address the issue of food waste should follow the food waste hierarchy below[22].



Transparency

23. Transparency is crucial and if ambitious food waste targets are to be realised, we need effective monitoring of waste in different sectors and at each level of the supply chain. UK retailers and large food and drink manufacturers currently collate food waste data from their operations under the voluntary Courtauld Commitment. However, this aggregate data lacks transparency allowing many of the underperforming businesses off the hook. Tesco has taken an impressive lead on this issue and their CEO recently challenged his competitors to follow suit[23], but the fact that none have yet done this shows that a voluntary approach is inadequate.

24. We need public scrutiny of company level practices to provide the incentive for change. The UK government should introduce legislation that makes **public reporting of food waste data mandatory for food businesses over a particular size**, including data on supply chains. Making this data publicly available would increase competition between businesses generating positive results for consumers, retailers and suppliers. The farm level waste baseline data that is predicted to become available via WRAP and Courtauld 2025 should also be made public by each of the signatory companies.

Relaxation of cosmetic specifications

25. WRAP's research revealed that 5-25% of apples, 9-20% of onions and 3-13% of potatoes are estimated to be wasted on cosmetic grounds[24]. Feedback's own research (unpublished at time of writing) indicates that on average 7.4% of surveyed horticultural farmers crops were not sold to primary markets because of cosmetic standards, though this ranged from 0-40%. 40% of the surveyed farmers also said that retailers use cosmetic standards as an excuse to reject produce when they can get a lower price elsewhere or their demand has fallen –a common issue globally.

26. The market for cosmetically imperfect produce is gaining ground, with more retailers selling 'wonky' fruit and vegetables and more consumers buying these new ranges[25]. This has had positive effects on food waste – for example Tesco claim that it's *perfectly imperfect* apple and strawberry lines have increase crop usage from 87% to 97%, and 88% to 95% respectively[26]. Aldi claim that its *Everyday Essentials Potatoes* range has allowed them to sell 34,000 tonnes of potatoes (an increase of 17%) which would have otherwise fallen outside of their cosmetic specifications since they launched this range in January 2014[27]. Transparent data about such projects is limited however, and more information is needed to judge the success of these voluntary measures, verified by third parties.

27. Introducing explicit 'imperfect' product lines is a useful first step in engaging consumers with non-uniform products. However, retailers can and should play a key role in normalising this type of food by also including imperfect produce into existing economy lines of produce as well as incorporating this fresh produce into processed products such as juices, smoothies and soups.

28. **Whole crop purchasing**. To stop farmers being left with rejected crops that they have to plough back in to their fields, retailers should commit to buying all a farmer's crop, and take on the job of ensuring everything grown is used, either in high end, imperfect ranges or secondary products. WRAP advocates whole crop purchasing[28] as a means to shifts the risk for food waste from the producer to the retailer, thus reducing externalities where supermarkets may not bear the cost of food waste that their policies create. Some have already begun this practice, for example Tesco have guarantee to buy 100% of their banana growers' crops.

An end to unfair trading practices (UTPs) and a stronger Grocery Code Adjudicator (GCA)

29. Feedback's research in Kenya found that farmers growing for export regularly waste harvests due to the behaviour and buying practices of European retail buyers[29]. UTPs such as order cancellations, last minute changes to forecasts, retrospective changes to supply agreements and the use of cosmetic specifications to reject produce all cause food to be wasted and lead any farmers into cycles of debt. Subsequent trips to Peru and Guatemala, and research within the UK, revealed similar issues.

30. The Groceries Code Adjudicator (GCA) and the Groceries Supply Code of Practice (GSCOP) that it oversees is a landmark piece of legislation that aims to put an end to unfair trading practices (UTPs) in the food supply chain. UTPs generate increased risk and uncertainty for suppliers leading to overproduction and ultimately food waste[30]. Examples of such practices include uncompensated order cancellations, last minute changes to forecast volumes and product specifications, and retrospective changes to supply agreements.

31. The GCA has been effective in reducing the prevalence of UTPS between retailers and their direct suppliers, yet 62% of suppliers still say they experience issues with UTPs[31]. Since the GCA is limited to regulating the relationship between retailers and their direct (first-tier) suppliers, indirect suppliers are not protected, despite experiencing UTPs[32]. Direct suppliers are fearful of raising complaints with the GCA in case of persecution by their retail clients, and so transfer the risk and cost of UTPs up the chain. Feedback recommend that **the GCA have their remit extended in order to protect indirect suppliers in the same way that direct suppliers are protected**.

Changes to Date labelling

32. Date labels can be confusing and cause customers to throw away perfectly edible and nutritious food. There are some valid health and safety reasons for 'use by' dates, but 'best before' can be misleading and often misinterpreted as implying that a product is not good or cannot be eaten beyond this date, even though many remain tasty, healthy and nutritious well beyond. Unfortunately, food redistribution charities do not take food after these dates as they do not want to give food to which has been rejected by others to vulnerable people. Retailers must find a better method for stock control and customer advice, and phase out the use of best before labels. For example invisible date labels for stock control or different language such as 'freshest on'.

Redistribution

33. In 2015, retailers and manufacturers diverted 47,000 tonnes of edible unsold food to people, the equivalent of 91 million meals a year[33]. However, FareShare estimate that only 2% of total edible food waste is being redistributed[34]. Any money saved through food redistribution schemes should be reinvested in strengthening existing services, rather than used as an excuse to cut public investment in support for those suffering from poverty.

Send catering waste to livestock and address perverse AD incentives

34. The hospitality sector produces huge amounts of catering waste (i.e. leftovers). For example, British restaurants waste 600,000 tonnes of food every year in the UK - an average of 21 tonnes per restaurant, with 34% arising from customer plate leftovers[35]. Whilst this food is not suitable for redistribution to people, it can form a healthy, economic and sustainable part of diets for livestock.

35. Despite its proven potential as a safe and valuable feed source for omnivorous non-ruminant livestock, the use of heat-treated catering waste was banned across Europe in 2001. Researchers at Cambridge University[36] have found that catering waste could:
(a) Replace 8.8 million tonnes of human-edible grains currently fed to pigs;
(b) Reduce the land requirement of EU pork production by 21.5%, equalling 1.8 million hectares of global agricultural land, an area roughly half the size of Germany, including hundreds of thousands of acres of South America's biodiverse forests and savannahs; and
(c) Provide a use for the 100 million tonnes of food wasted in the EU each year while still producing pork of high quality.
(d) Sending food waste to animal feed scores higher on environmental and health indicators than anaerobic digestion (biogas) or composting.

36. As well as Japan and Korea, the United States, which has been free from Foot and Mouth Disease since 1929, permits the feeding of catering waste as long as it has been heat-treated following well-evidenced specifications. For example, Rutgers University has a system in its dining halls where food scraps are diverted to the nearby Pinter farm at half the cost of sending the waste to landfill.

37. **A Revision of the ban on feeding catering waste to non-ruminant livestock** would realise significant environmental and economic benefits. We advocate the use of regulated, centralized, sophisticated catering waste treatment systems to ensure food waste can safely be used in feed for non-ruminants (pigs and chickens). Cambridge University[37] has calculated that the reduction of land use change (which often equals deforestation) to be gained from using catering waste adds to 21.5 % versus 1.2 % from non-animal wastes such as bakery products. Feedback is working with academic experts on a full animal health, economic and environmental risk analysis. Revising this European regulation (either within or outside the EU) could create jobs, revitalise the

British pig industry and its associated rural livelihoods, and set a new standard for sustainable food production across the European continent.

38. The UK livestock industry already uses 2.2 million tonnes of food by-products to produce animal feed[38], and WRAP have highlighted 880,000 tonnes of permissible waste food as suitable for animal feed. We applaud their guide to help food businesses divert surplus no longer fit for human consumption to animals. Feedback has been developing an interactive user-friendly web app which we will be sharing with DEFRA and the FSA to support the further work on clarifying the guidance.

39. However, much food waste that could legally go to animal feed is often sent for anaerobic digestion (AD) instead, even though it is further down the food waste hierarchy. This is encouraged by financial incentives. To avoid this perverse situation, and ensure redistribution and animal feed take priority over AD, we advocate that the Renewables Obligation Certificates are only used for AD of non-edible food waste that is otherwise destined for landfill, and not any food waste that could be directed further up the hierarchy (as is the case with the Renewable Heat Initiative).

A National Food Waste Reduction Target

40. Alongside Scotland, the UK government should set a target for Northern Ireland, Wales, Scotland and England to halve food waste across the supply chain (including pre retail food waste) by 2030, in line with the United Nations Sustainable Development (UNSDG) Goal 12.3 that seeks to halve food waste globally by 2030.

Summary

41. There are certain issues for which legislation is essential to ensure a level playing field and set us on the road to meet international and European targets:
    - A UK national food waste reduction target
    - Mandatory industry food waste reporting
    - Removal of incentives for sending edible food to anaerobic digestion
    - Strengthening the remit of the Groceries Code Adjudicator
    - Revision of the ban on feeding catering waste to non-ruminant livestock.

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[1] http://www.wrap.org.uk/sites/files/wrap/UK%20Estimates%20May%2016%20%28FINAL%20V2%29.pdf

[2] WRAP previously included farm level waste estimates (3 million tonnes domestically and 4 million tonnes overseas) in their national statistics, but have since removed these figures due to inadequacies in the data. WRAP are now working with industry stakeholders under Courtauld Commitment 2025 to set baseline data for this stage of the supply chain:
http://www.wrap.org.uk/sites/files/wrap/UK%20Estimates%20May%2016%20%28FINAL%20V2%29.pdf
http://www.wrap.org.uk/sites/files/wrap/UK%20Estimates%20October%2015%20(FINAL)_0.pdf

[3] http://www.wrap.org.uk/content/quantification-food-surplus-waste-and-related-materials-supply-chain

[4] http://www.wrap.org.uk/content/courtauld-commitment-2025-transform-uk-food-and-drink

[5] http://www.wrap.org.uk/sites/files/wrap/Resource_Map_Fruit_and_Veg_final_6_june_2011.fc479c40.10854.pdf

[6] 59% is calculated as 166kg of the 280kg of food wasted per year arising between the production and processing stages of the European food supply chain. FAO (2011), *Food losses and food waste*

[7] 30% is calculated as 51kg of the 173kg of food wasted per year arising between the production and processing stages of the European food supply chain. http://www.eu-fusions.org/phocadownload/Publications/Estimates%20of%20European%20food%20waste%20levels.pdf

[8] http://www.fao.org/docrep/018/i3347e/i3347e.pdf, p17

[9] http://www.wrap.org.uk/sites/files/wrap/Resource_Map_Fruit_and_Veg_final_6_june_2011.fc479c40.10854.pdf p9

[10] http://www.nature.com/nclimate/journal/v4/n10/full/nclimate2353.html

[11] http://www.wrap.org.uk/sites/files/wrap/UK%20Estimates%20May%2016%20%28FINAL%20V2%29.pdf

[12] https://www.rabobank.com/en/research/food-agribusiness/food-waste-innovation.html

[13] http://feedbackglobal.org/wp-content/uploads/2015/07/Food-Waste-in-Kenya_report-by-Feedback.pdf

[14] http://www.lovefoodhatewaste.com/content/facts-about-food-waste-1

[15] http://www.wrap.org.uk/sites/files/wrap/Overview%20of%20Waste%20in%20the%20UK%20Hospitality%20and%20Food%20Service%20Sector%20FINAL.pdf

[16] http://pork.ahdb.org.uk/prices-stats/costings-herd-performance/eu-cost-of-production/

[17] In the centralised food waste recycling systems, swill typically costs only 40–60% of conventional feed (20 vs. 50¥/kg in (Takahashi et al., 2012) and 167 vs. 278₩/kg in (Nam et al., 2000) and main text, Fig. 4) from zu Ermgassen.

[18] http://www.sustainweb.org/news/voicesofthehungry/

[19] United Nations Environment Programme (2009), The Environmental Food Crisis – The Environment's Role in Averting Future Food Crises, A UNEP Rapid Response Assessment, ed. C. Nellemann et al., February 2009, p. 19

[20] http://www.sepa.org.uk/regulations/waste/recycling-including-food-waste/

[21] http://www.sepa.org.uk/environment/waste/zero-waste/

[22] http://www.feeding5k.org/businesses+casestudies.php

[23] http://www.thegrocer.co.uk/home/topics/waste-not-want-not/dave-lewis-on-tescos-call-to-arms-on-food-waste/537745.article

[24] http://www.wrap.org.uk/sites/files/wrap/Resource_Map_Fruit_and_Veg_final_6_june_2011.fc479c40.10854.pdf

[25] http://m.thegrocer.co.uk/539812.article?mobilesite=enabled

[26] http://www.thegrocer.co.uk/home/topics/waste-not-want-not/is-the-wonky-veg-revolution-happening-at-last/539812.article

[27] http://www.huffingtonpost.co.uk/2016/02/05/wonky-veg-policy-at-supermarkets-tesco-sainsbury-morrisons-co-op-aldi_n_9169362.html

[28] http://www.wrap.org.uk/sites/files/wrap/WCP%20Action%20Plan%20-%20finalv1.pdf

[29] Feedback, 2015. Food Waste In Kenya: uncovering food waste in the horticultural export supply chain

[30] European Parliament Committee on the Internal Market and Consumer Protection (IMCO), 2016. Report on unfair trading practices in the food supply chain. http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2016-0173+0+DOC+XML+V0//EN#title4

[31] https://www.gov.uk/government/news/2016-annual-conference-speaker-presentations

[32] www.feedbackglobal.org/reports

[33] http://www.thegrocer.co.uk/home/topics/waste-not-want-not/waste-not-want-not-major-new-grocer-campaign-to-fight-food-waste/536459.article

[34] The All-Party Parliamentary Enquiry into Hunger and Food Poverty in Britain (2014), *Note from visit to FareShare 19th May 2014*

http://archive.defra.gov.uk/foodfarm/food/pdf/food2030strategy.pdf

[35] http://www.wrap.org.uk/sites/files/wrap/Overview%20of%20Waste%20in%20the%20UK%20Hospitality%20and%20Food%20Service%20Sector%20FINAL.pdf

[36] http://www.sciencedirect.com/science/article/pii/S0306919215001256

[37] http://www.sciencedirect.com/science/article/pii/S0306919215001256

[38] http://www.wrap.org.uk/sites/files/wrap/UK%20Estimates%20May%2016%20%28FINAL%20V2%29.pdf